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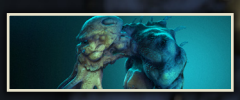
3d-artist

Renowned for his truly mesmerising characters, **Olivier Ponsonnet** chats with us this month, and we discover out why be prefers using 3ds Max to ZBrush ...

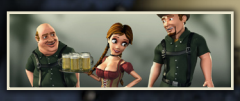
Olivier Ponsonnet

Articles
Unexpected - Honda Spot & 3d-io Games & Video Production



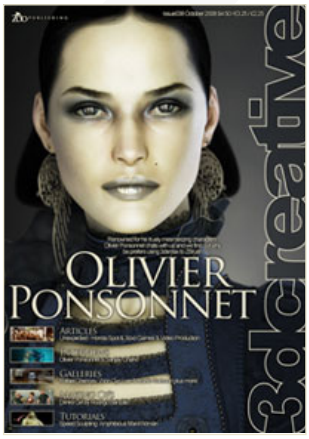
Interviews
Olivier Ponsonnet & Sanjay Chand

Galleries
Rafael Ghencev, Won Gyo Lee & Martin Carlsson, plus more!



Making Ofs
Drinks Girl by Rodrigo Banzato, plus more!

Tutorials
Speed Sculpting: Amphibious Man/Woman, plus more!



Editorial

Welcome to Issue 38! This month we welcome **Olivier Ponsonnet** to 3DCreative, which I've personally been really excited about since I very first heard back from him in reply to my interview proposal! You'll no doubt already have seen the fantastically realistic 3D works that make up the stunning portfolio of this artist – many of which grace 3DCreative PAGES 007 – 014, and we find out how after 12 years working in the field of CG, Ponsonnet's works have developed from an interest in cars and futuristic cities, to the beautifully rich character images that we find today. Our second interview this month is with **Sanjay Chand**, who some of the 3DCreative team had the pleasure of meeting at Siggraph 2008! Chand is currently working as a Lighting Artist, and from his portfolio – featured on PAGES 017 – 023 of 3DCreative – we discover his superb creature design and rendering skills in the stunning examples of alien creations; creatures that appear to have come from the darkest of nightmares and are evidence of the fantastic classes taught by Alex Alvarez at the Gnomon School of Visual Effects. We also have a great little Studio Interview with **3d-io Games & Video Production**, on PAGE 025; we chat to CEO and Art Director, Igor Posavec whose company focuses on 2D and 3D digital design for games and entertainment. And we love the guys at **Unexpected** so much that we've asked them back again for this issue, with a great article on the making of once of their recent ads for Honda: L.O.V.E (PAGE 041).

As far as tutorials go, we have Part 3 of our big tutorial series on creating a complete scene, specialising in aged and weathered texturing, which this month focuses on preparing the textures – next month we'll take an in-depth look at mapping! Our second instalment of the Speed Sculpting series welcomes back **Jesse Sandifer** who has this month tackled the brief alongside Brazilian ZBrush sculptor, **Dalton Alves Muniz**. Both artists have interpreted the brief differently; Muniz has gone for a female fish-like creature whilst Sandifer has created a frog-like being – both in response to this month's topic, "Amphibious Man/Woman" (PAGE 067). **Rafael Ghencev** is also back in this issue with his second part of our wonderful ZBrush Character Creation series, this month creating an obese Asian man and teaching us the sculpting and texturing techniques along the way (PAGE 081). He's also kindly provided us with movies to accompany the tutorial this month, for those who requested that they'd like to see the WIP in video format! So don't say we never listen to you guys *winks*!

Our Making Ofs this month include work from **Paulius Biesevicius**, who talks us through the creation of his Peugeot concept car (PAGE 093), and **Rodrigo Banzato** discusses the making of his cartoon image, "Drinks Girl" (PAGE 101). You can also find a chapter from the new Digital Art Masters: Volume 3 book by **Damien Canderle**, who details the making of him alien creature called "Gnom" (PAGE 108).

Well, I hope we've provided plenty to keep you out of trouble till next month's offerings! Thanks for all your support and enjoy this month's issue. Cheers! ED.

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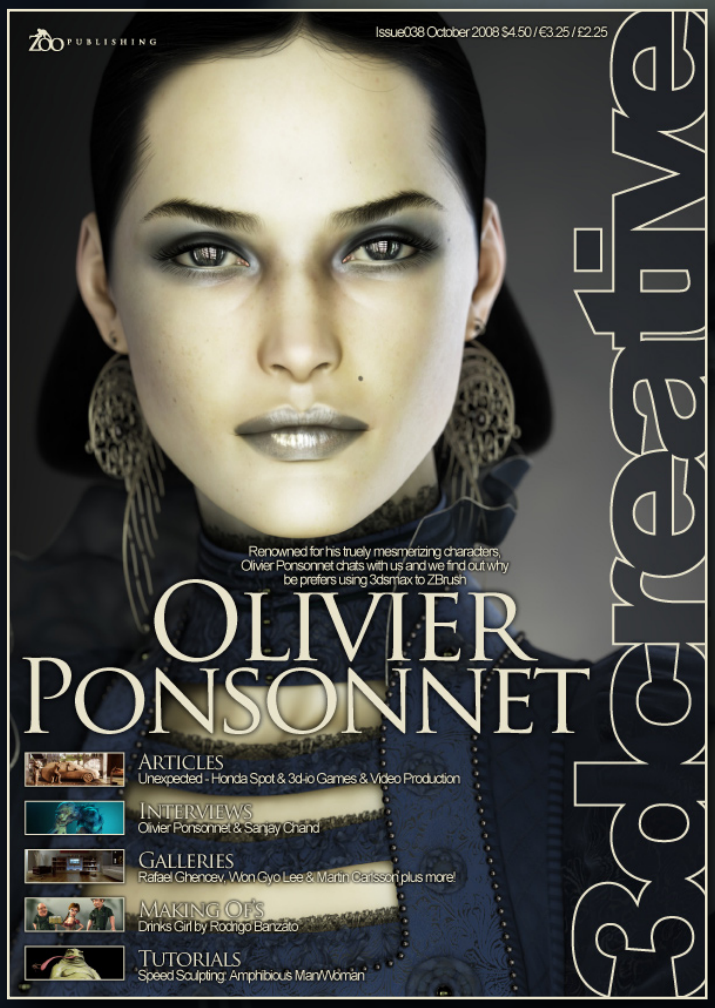

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If you're having problems viewing the double-page spreads that we feature in this magazine, follow this handy little guide on how to set up your PDF reader!

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For optimum viewing of the magazine, it is recommended that you have the latest Acrobat Reader installed. You can download it for free, here: DOWNLOAD!

To view the many double-page spreads featured in 2DArtist magazine, you can set the reader to display 'two-up', which will show double-page spreads as one large landscape image:

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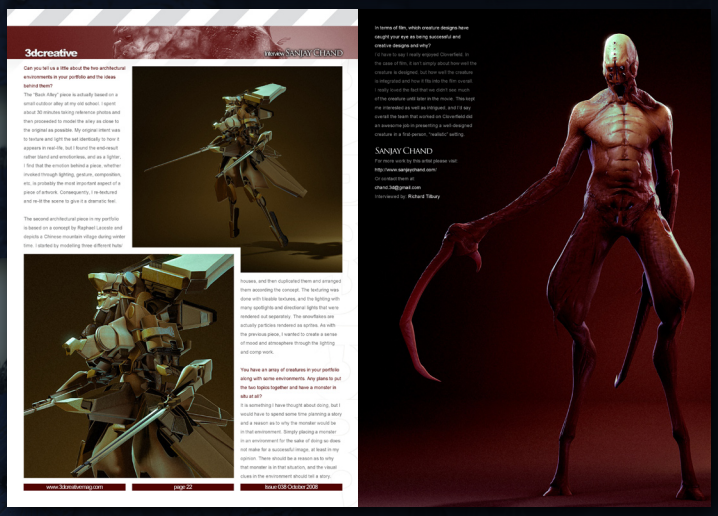

Contributing Artists

Every month, many artists around the world contribute to 3DCreative Magazine. Here you can read all about them! If you would like to be a part of 3DCreative or 2DArtist Magazines, please contact:

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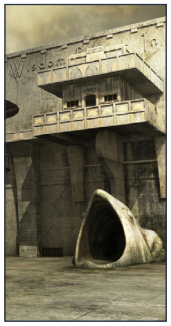
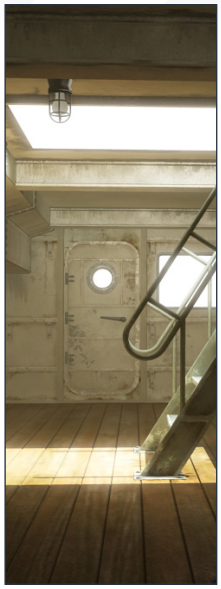
Aged & Weathered

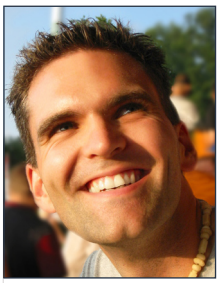


The start of this new tutorial series sees Richard Tilbury tackle the opening three chapters. Richard will then hand over to our new tutorial artists; these wonderful people will be responsible for creating the remainder of the series for 3ds Max, Cinema 4D, Lightwave, Maya & Softimage XSI.



Richard Tilbury

Has had a passion for drawing since being a couple of feet tall. He studied Fine Art and eventually was led into the realm of computers several years ago. His brushes have slowly been dissolving in white spirit since the late nineties, and now, alas, his graphics tablet has become their successor. He still sketches regularly and now balances his time between 2- and 3D, although drawing will always be closest to his heart. http://www.richardtilburyart.com



Alexander Kiesl

One of the Managing Directors of Unexpected Postproduction. He started CG at the age of 14 with 3D Studio on MS DOS. From 2000 he studied animation at the Filmakademie Baden-Württemberg and finished in 2005 with the award-winning short, “Racing Beats“. Since 2005 he has been part of the directing duo, Alex & Steffen.

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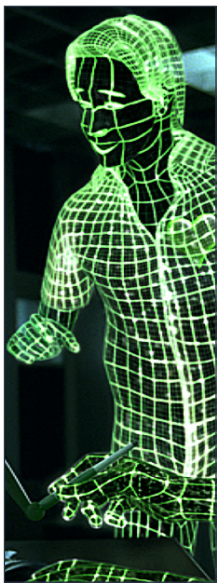

Steffen Hacker

Started film-making at the age of 15, and soon became one of Adobe’s top Software Promoters for professional compositing solutions. He also studied at the Filmakademie and graduated together with Kiesl, co-directing “Racing Beats“. Since 2005 he has been part of the directing duo, “Alex & Steffen”, and is directing international VFX heavy commercials.

http://www.unexpected.de

Rafael Ghencev

A 25-year old Character Artist, based in São Paulo, Brazil. He has had a passion for art since he was a young boy and saw his grandfather painting and drawing. He has since been searching to increase his skills and knowledge, and his passion for sculpture and drawing drives him to balance his studies between traditional art and 3D.

http:// www.rafestuff.blogspot.com

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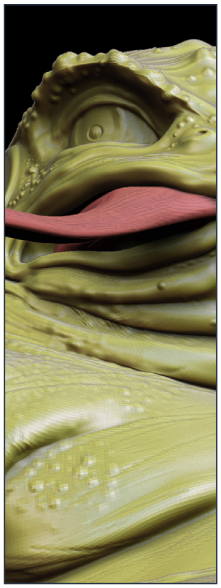


Jesse Sandifer

A self-taught digital artist with 8 years experience. He co-owns Green Grass Studios in Dallas, Texas, which works on a variety of projects for films, games, television, commercials and in-game arena entertainment. His spare time is spent participating in online challenges, doing personal artwork and dabbling with drawing and sculpting. http://www.jessesandifer.com

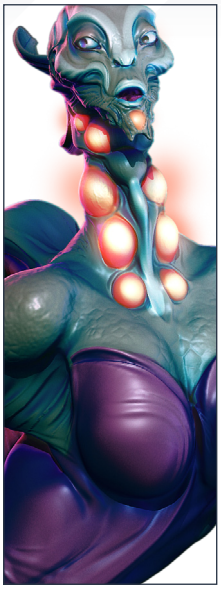
jessesandifer@gmail.com

Rodrigo Banzato

Born in Brazil in 1979 and graduated in industrial design. He has a passion for games and is focused on the creation of different types of characters for games and movies. He's been studying 3D for 6 years and has done work for TV, movies and games. He also owns a school called "Tonka3D" and is helping other people to create great characters.

http://www.tonka3d.com.br

rodrigobanzato@hotmailcom



Dalton Alves Muniz

A freelance artist who has worked with some great agencies and productions in Brazil as an Illustrator, Modeller and Art Director, working on the likes of storyboards for TV commercials and illustrations. He is now focusing on games and characters, using programmes like XSI and ZBrush, and using his 2D skills in his 3D art.

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Paulius Biesevicius

Started his CG artist career about 5 years ago from a single 3ds Max book that he obtained when abroad for summer in London. Finishing his bachelor and postgraduate studies of management, he chose to stay close to CG and at the moment is working on commercials, character animations, visualisations and other work in both Lithuania and abroad.

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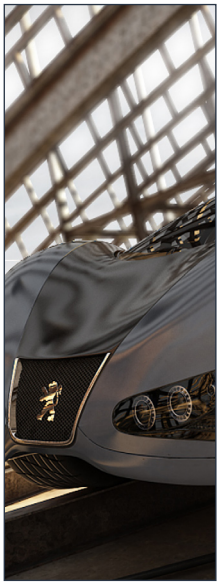


Would You Like to Contribute to 3DCreative or 2DArtist Magazine?

We are always looking for tutorial artists, gallery submissions, potential interviewees, Making Of writers and more. For more information, send a link to your work here: **lynette@zoopublishing.com**

Image by Neil Maccormack

"I began working with CG about 12 years ago. I was young and not really interested in characters or organic modelling back then - I was just trying to make stuff like cars or futuristic cities..."

OLIVIER PONSONNET

Olivier Ponsonnet is a 3D artist who specialises in characters and whose portfolio comprises of a rich array of portraits. He combines his hand painted textures with realistic rendering techniques to give his characters "beauty, depth and soul."

OLIVIER PONSONNET

Could you first of all tell us a little about yourself and how you came to be involved in the world of 3D characters?

I began working with CG about 12 years ago. I was young and not really interested in characters or organic modelling back then - I was just trying to make stuff like cars or futuristic cities... About six or seven years ago, when I was in high school, I had my very first attempt at making a human face and things just carried on from there. I particularly improved my skills while at university because I had a lot of spare time. I studied computer science (got a master's degree), but as soon as I got back home I was practicing my 3D skills again. Since then I have never really stopped creating 3D characters.

Your images are an enchanting mixture of realism along with a painterly quality. What secrets do you attribute this to?

I'd attribute this to several reasons. The first one is because I use 3D and its realistic rendering capabilities as a tool, not as a goal. I mean I'm not trying to get an awesome photorealistic rendering with perfect shading and so on; I just try to create characters and use this technique to make them believable, to give them beauty, depth and soul. Maybe that's why I sometimes end up with realistic unreal characters.

About the painterly effect, I'd attribute this to the painted maps and maybe to the post effects and particularly to noise, colour correction and depth of field.

It is interesting that you mention using the software/rendering as a tool and not just a goal, as I think many artists do aim for realism and sometimes at the expense of the “soul” of the piece. Do you see 3D software advancing more and more towards photorealism and if so, do you feel this may be detrimental to artistic merit or not?

3D software certainly tends toward photorealism. It becomes easier and easier to create photorealistic rendering. For example, most of the 3D packages out there have skin shaders which wasn’t the case a few years ago. But on the other hand you don’t see a greater number of beautiful characters. I mean the technical part is now maybe easier, but the artistic challenge is still there. With all these fancy tools sometimes it’s even harder to avoid producing some kind of soulless technical demo.

As a character artist it is interesting to see that 3ds Max is your preferred software of choice, given that many people who work in your genre have moved over to ZBrush. What is it about Max that appeals to you and your way of working?

ZBrush is, in my humble opinion, an incredible piece of software for making organic stuff - I'm just not used to it. I tried it a few times and it's still difficult for me to make clean shapes. So I can't model a pure face, like a child or woman's. For these kinds of models I still prefer moving vertices one by one within 3ds Max in order to get exactly what I want. I know that some talented artists make beautiful things with software like ZBrush, but as I don't feel limited with 3ds Max, when it comes to clean and pure faces, I'll stick to Max.

What kinds of maps do you apply in Max and to what extent is any post production responsible for the final image?

The number of maps obviously depends on the object nature. For example, for the skin I have the following maps: overall diffuse map, two scattered diffuse maps (aka epidermal and subdermal maps), specular map, glossiness map, bump map. Nothing fancy, just what I need to use the mental ray fast skin shader. In terms of post production, I always try to keep it simple

and apply filters that I could also apply on an animated sequence. So I don't add or modify details in post production. I only apply basic filters like depth of field, blur, noise or colour corrections.

Much of the clothing you choose to adorn your characters appears to reflect another era or indeed an altogether different world from ours. Tell us a little about your inspiration for this.

What I like is mixing things from different eras or cultures together. For example, when I started Opal child, the makeup of the character was much like the makeup you find on children in India, but it ended up looking quite different. For the clothes, it's a mix of an antique toga with a shirt collar. The hat was inspired by an old cloth hat. For the Cold Blue character, I got the dress design from a 16th century portrait of Anne of Cleves. In this particular picture I kept

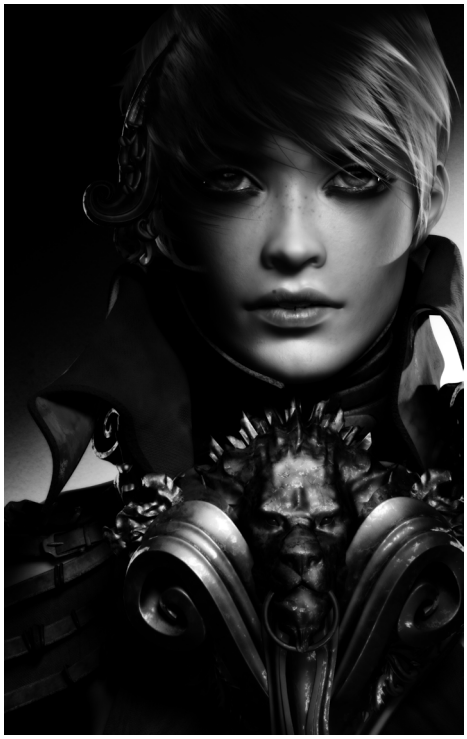
the overall structure of the dress, but I changed the colour scheme and added or modified some details. Actually anything from any era can be inspiring.

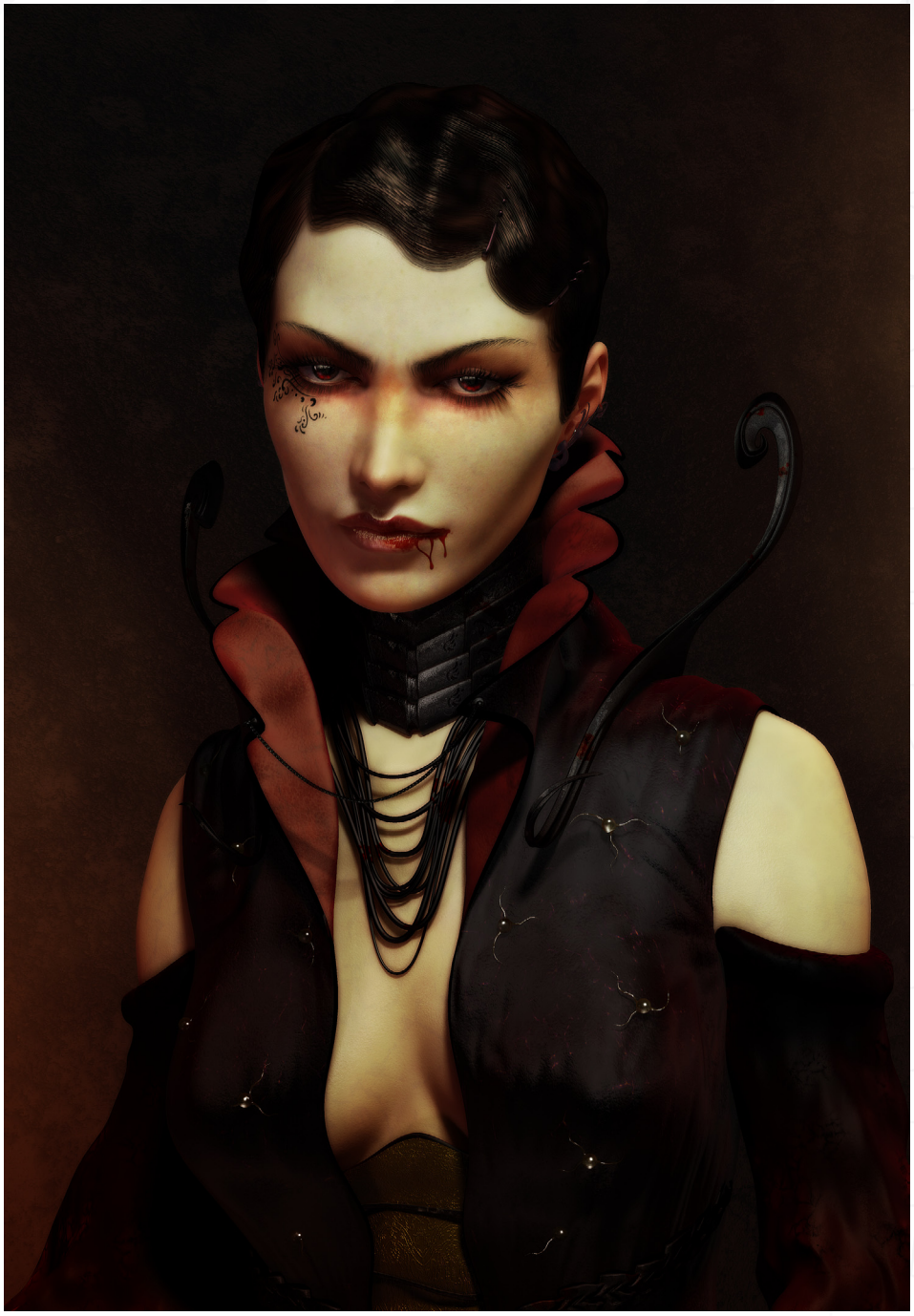
People say that eyes are the key to the soul and your characters certainly possess a life of their own. How do you create such convincing eyes and what techniques and maps do you employ?

The technique is quite simple: I model the eyeball with two separate objects. The first part is an outer sphere which has glass or water properties (fully transparent, IOR 1.4, fresnel reflections) with a really slight bump (a simple noise map) to get little deformations on the eye reflections. The second part is the inner part which is also basically a sphere with an eye diffuse map. For this second part I use a SSS material to get some kind of slight milky, soft aspect. And that's all!

The eyes certainly have a captivating and "living" quality, but how do you go about creating the hair and eyebrows?

I always use simple modified polygonal planes with alpha maps. I reuse this same texture as bump and specular maps. I use this technique for two reasons. First, while it's not the most realistic way to do it, it's efficient and visually convincing. Second, it's really easy to modify. I mean I can create the eyebrows or hair pretty early on in the creation process, and without too much effort, even when the modelling is far from being finished or when my model doesn't have any UVs coordinates.





What do you think are the key aspects that make your characters believable and where do you think most people going wrong?

As I said before, I think my characters feel believable because they have realistic details and because the render is somehow realistic. I mean my characters don't look realistic overall, you can tell they're not real, but they are based on realistic anatomical features. You can find the same kind of harmony you usually find on a real face, I mean that's what I'm aiming at. I'd also say observation is obviously one of the key things to get good looking faces; I spend hours looking at photo portraits or paintings. Many people pay too much attention to detail and realism. I see many great renders with incredible

What do you think are the main advantages to hand painting the textures as opposed to using photographs? Or do you simply enjoy painting them yourself?

The first reason is because I like painting maps. Second, the MR fast skin shader can handle overall diffuse, subdermal and epidermal maps and you can't get these maps simply from photos. I could still use photos as bases and modify them, but I like the fact I really create them.

One final question: of all the portraits in the world, which impresses you the most and why?

I'd say the face of the Virgin in the Michelangelo's Pietà. This sounds really classical, but I'm always impressed with the elegance and modernity of the face. I mean her face doesn't look dated at all; it could have been created a few days ago. Her beauty is just timeless.

Olivier Ponsonnet

For more work by this artist please visit:
http://www.reiv.fr/
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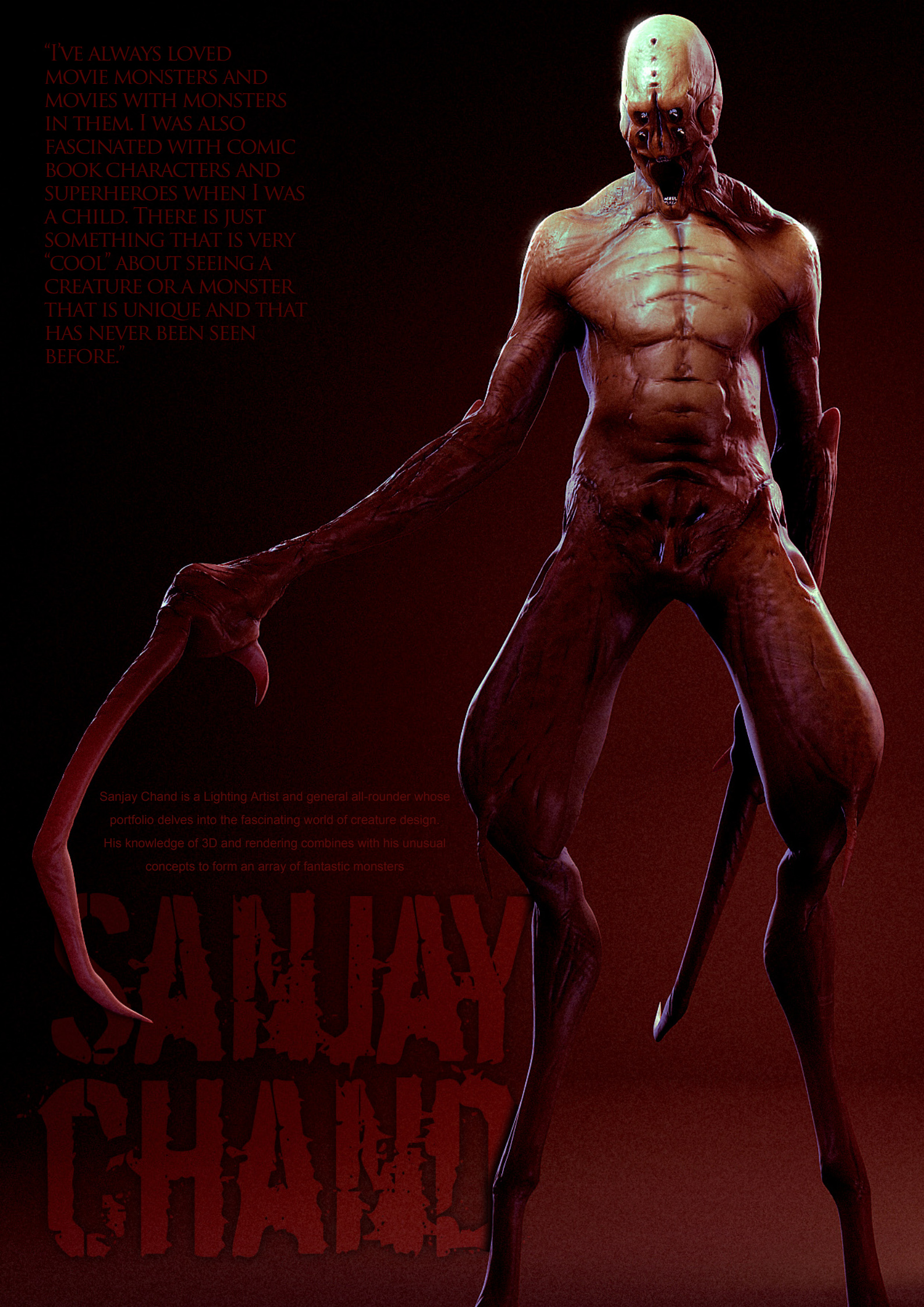

"I've always loved movie monsters and movies with monsters in them. I was also fascinated with comic book characters and superheroes when I was a child. There is just something that is very "cool" about seeing a creature or a monster that is unique and that has never been seen before."
Sanjay Chand is a Lighting Artist and general all-rounder whose portfolio delves into the fascinating world of creature design. His knowledge of 3D and rendering combines with his unusual concepts to form an array of fantastic monsters
SANJAY CHAND

SANJAY CHAND

Your website states that you are a Lighting Artist / Generalist. Can you tell us a little about what your job entails and the kinds of tasks you are required to do on a regular basis?

My work-week can be fairly varied. For example, at the place where I currently work I was lighting and rendering out passes during the first week, modelling a set of characters, texturing them, and lighting the final shots during the second week, and re-topologizing a character during my third week. I was then tasked with a texturing and lighting assignment that required a small amount of modelling as well. However, this isn't always the case. At my last job, I was strictly a lighter and compositor and spent most of my time inside of Nuke.

A bit of an all-rounder then. Do you feel this is important nowadays or do you think specialisation is still an equally viable option?

I think being able to specialise is very important, especially if one wants to work at a larger studio such as ILM, Pixar, DreamWorks, etc. As a general rule, the larger the studio, the more specialised each artist is. I'd say a good route to take is to be very good at one thing, while being good in some other areas too. This makes an artist more marketable.

Your portfolio comprises a fair percentage of creatures. What is it that interests you about this subject in particular?

I've always loved movie monsters and movies with monsters in them. I was also fascinated with comic book characters and superheroes when I was a child. There is just something that is very "cool" about seeing a creature or a monster that is unique and that has never been seen before. Even if one looks on major CG

sites such as 3DTotal or CGTalk, it's usually the characters and monsters that get the most attention from people, as there is this universal appeal to a well-designed character or creature.

Creatures and monsters are certainly a popular genre, as are characters as a whole. What do you feel are the most difficult problems that need to be overcome when you're designing new life forms?

The most difficult problem is creating a monster that is believable. This relates more to following the principles of anatomy, as even the most fantastical (yet successful) creatures are grounded in reality. There are anatomic principles that must be followed in regards to muscle flow, ligaments, skin folds, etc, in order to make something look realistic.

It is clear that much of your work is made up of a number of different render passes. What is your typical workflow in this regard and can you describe the main components that make up the final composites?

In the case of the creatures, I start by importing medium-res ZBrush sculpts, and I assign a gray Lambert shader to the mesh. I then proceed to light the model, mainly with spotlights for the key light(s) and some of the fill lights, and directional lights for everything else (rim, bounce, etc). I then assign the skin shader, plug-in the texture maps, and proceed to tweak the shader. I render out each light separately (with shadows, usually), as well as Specular, Reflection, Zdepth, Occlusion, and cavity passes. I then take these passes into a node-based compositing app (such as Nuke or Fusion) and spend a considerable amount of time colour correcting each light pass, as well as the Occlusion. One can achieve some nice fake-GI/ Final Gather effects simply by colour correcting passes to simulate bounce light.

My process for my creatures is detailed further in *Digital Art Masters: Volume 3.*

Do you find that compositing the different render passes in post production is a more effective way of getting the right result, or is it simply quicker and more flexible?

Compositing in passes definitely offers one more control, but I would not say it is quicker.

However, having as much control as possible (within reason) is always a good thing, especially when it comes to lighting. Although it is rather tedious to set up the render-layers in Maya (this can take hours), the amount of control that one will have on a per-light basis is worth the effort.

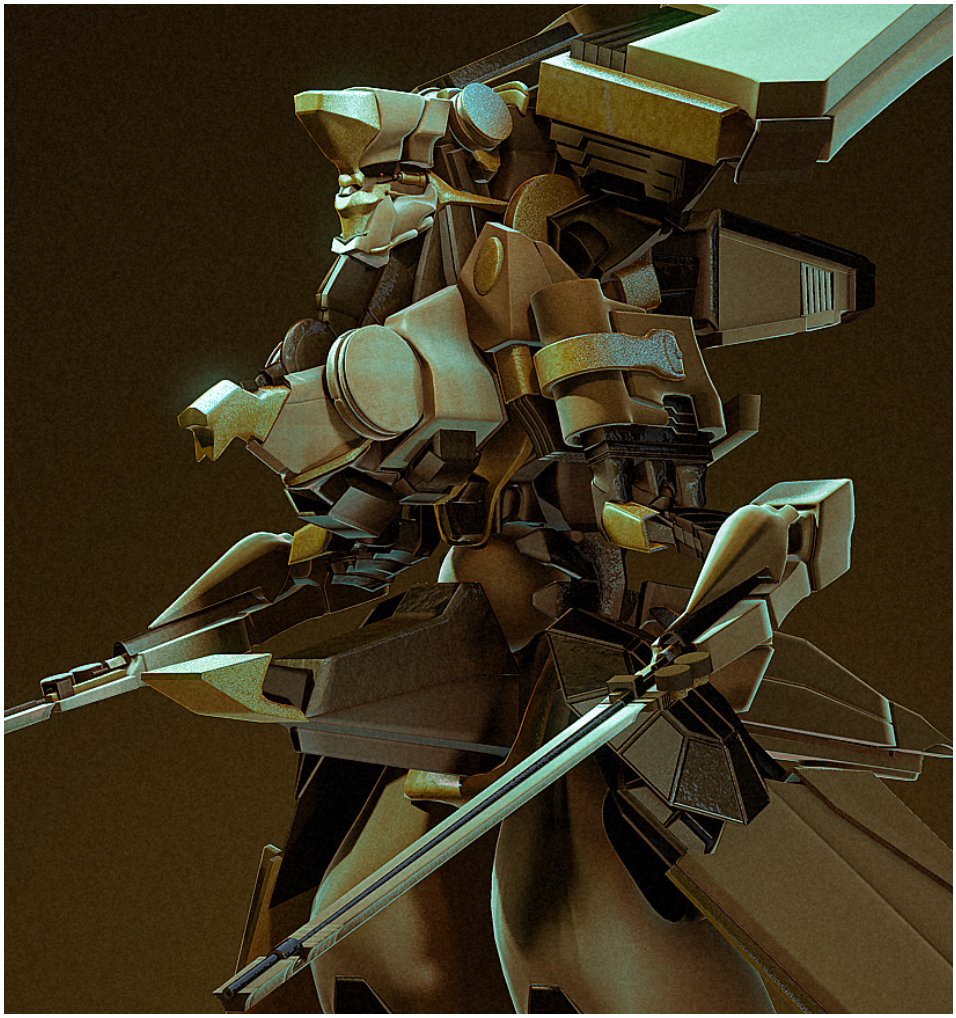
Your skills as a 3D artist are varied and cover a number of disciplines. What would you say is your favourite area and why?

On a personal level, I'd have to say it is designing creatures and completing them from concept to final render, which involves many disciplines. On a professional level, I do enjoy lighting although I am gravitating more towards the creature side of things.

Can you tell us a little about the two architectural environments in your portfolio and the ideas behind them?

The “Back Alley” piece is actually based on a small outdoor alley at my old school. I spent about 30 minutes taking reference photos and then proceeded to model the alley as close to the original as possible. My original intent was to texture and light the set identically to how it appears in real-life, but I found the end-result rather bland and emotionless, and as a lighter, I find that the emotion behind a piece, whether invoked through lighting, gesture, composition, etc, is probably the most important aspect of a piece of artwork. Consequently, I re-textured and re-lit the scene to give it a dramatic feel.

The second architectural piece in my portfolio is based on a concept by Raphael Lacoste and depicts a Chinese mountain village during winter time. I started by modelling three different huts/ houses, and then duplicated them and arranged them according the concept. The texturing was done with tileable textures, and the lighting with many spotlights and directional lights that were rendered out separately. The snowflakes are actually particles rendered as sprites. As with the previous piece, I wanted to create a sense of mood and atmosphere through the lighting and comp work.



You have an array of creatures in your portfolio along with some environments. Any plans to put the two topics together and have a monster in situ at all?

It is something I have thought about doing, but I would have to spend some time planning a story and a reason as to why the monster would be in that environment. Simply placing a monster in an environment for the sake of doing so does not make for a successful image, at least in my opinion. There should be a reason as to why that monster is in that situation, and the visual clues in the environment should tell a story.

In terms of film, which creature designs have caught your eye as being successful and creative designs and why?

I'd have to say I really enjoyed Cloverfield. In the case of film, it isn't simply about how well the creature is designed, but how well the creature is integrated and how it fits into the film overall. I really loved the fact that we didn't see much of the creature until later in the movie. This kept me interested as well as intrigued, and I'd say overall the team that worked on Cloverfield did an awesome job in presenting a well-designed creature in a first-person, "realistic" setting.

Sanjay Chand

For more work by this artist please visit:
http://www.sanjaychand.com/
Or contact them at:
chand.3d@gmail.com
Interviewed by: Richard Tilbury

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"Getting to spend my day creating peformances and bringing characters to life is so incredibly awesome, and I can't believe I get to work on such a cool project straight out of school. I'm so glad I had the opportunity to learn character animation in such a challenging and supportive environment."

- Aja Bogdanoff
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3D-IO Games & Video Production was founded in 1996 and focuses on digital content and 3D and 2D design in the game and entertainment industry. 3DCreative talks to CEO and Creative Art Director, Igor Posavec about the future of games and the ever-increasing pressures placed upon smaller, independent studios.

3d-io
Games and Video Production

From your company profile, it seems as though you cater for a broad range of industries and CG strands. Was this the intention behind the company's formation or did it simply come out of a growing need to be versatile?

Actually there was no plan at all. I started as a freelance artist and later a one-man-studio, but I soon realised that you can do only a limited volume of contracts or jobs in any given time frame. Quality and talent are one thing, but the only way to do some bigger and more serious productions is to have more than two hands. What began with a very small group of artists under one roof (or spread over the Internet), soon started growing into an efficient work structure. At first we did a lot of art projects: concept art and industrial designs. You know, all the stuff that's necessary to get experience and collect a few famous names for your portfolio. The main goal during all that time was to start a serious game production - a completely designed and programmed 3D game. It took almost eight years to reach that point and all these things you call "broad range of industries and CG strands" were the stepping stones on the path to where we are now. Those works were extremely important to strengthen the team and its know-how. Without doing all the baby pads, car designs, erotic covers and flash banners, we would have skipped over some very important basics.

You mention the digital art section using Photoshop and Painter as the key tools. Do you have a team of dedicated 2D artists who come up with the concepts for projects and do you ever indulge in pure 2D commissions?

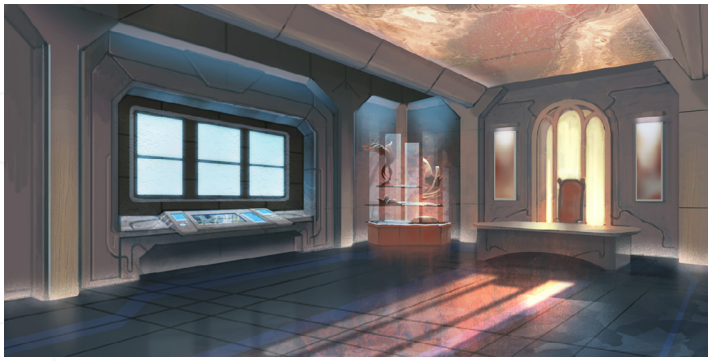
Concept art is the only part of the production we don't create completely here in the studio. The main reason for this is the short interval of concept

art production during game projects: game production takes between one and two years, and it's only for the first 3-4 months of this that the concept artists are really busy. We can't do a lot in the project if the publisher doesn't approve the majority of the concepts. After that, mainly 3D artists are engaged. We were very lucky to get Jelena Kevic and Daniel Igarza as concept artists for this project; since we have worked together on many projects in the past, the style setup was done almost instantly. Since these artists specialise in fictional artworks, and we had a project where we needed something completely new and original, I simply said: "Do whatever you want; I don't think I will be disappointed". Needless to say, the over 300 detailed character objects and room designs turned out awesome.

There were a lot of pen drawings for the classical concept art and the digital paintings and colouring were done in Photoshop.

What do you see as the most commonly growing demands placed upon companies such as yourself?

The time of small game studios has passed. We have difficulties producing anything else beyond B-sized games like adventures, small action games and casual games. A team of 20 artists and programmers used to be considered a "large professional studio", but in the year 2008 it is just a small hovel. The market is focused on blockbusters and not much else. The publishers want both: advanced and new ideas on one hand and a fully commercialised concept on the other. Those two components are very difficult to bring together, and the sheer mass of similar and almost indistinguishable games in the store shelves is the result. For us this means a constant reorientation on the market. While doing games, we must always place at least 30% of the development and design into other productions like industrial design and video clips. These provide the necessary income, since the money from C and B games is sparse. But by having great artists and programmers in one studio, you can only really go for games - there is nothing else remaining.

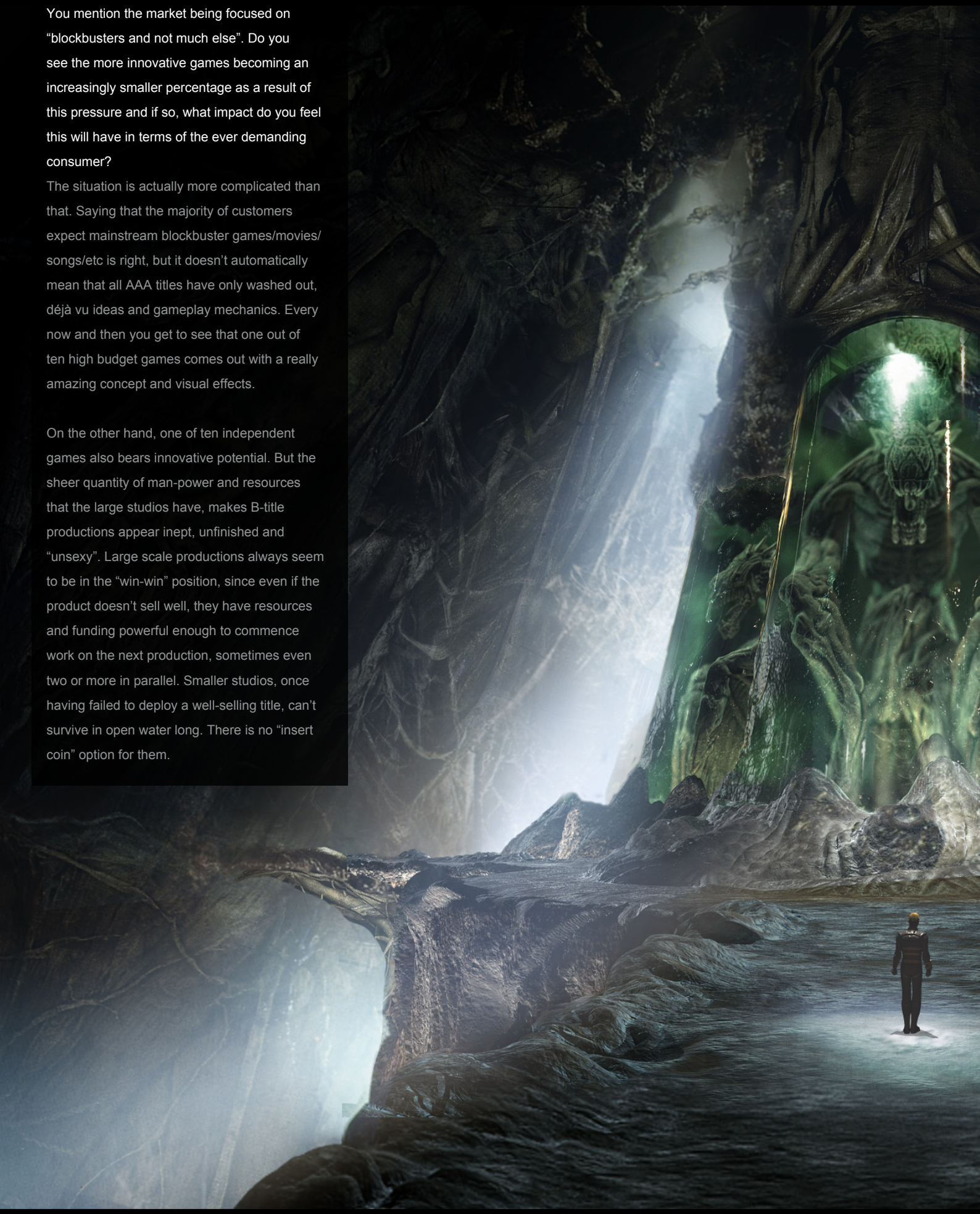


I see the present and the future as an either-or solution: smaller studios either have to fuse together (on their own or through a publisher that pools them together) or they switch to new markets like interactive visualisation or product/event design.

You mention the market being focused on “blockbusters and not much else”. Do you see the more innovative games becoming an increasingly smaller percentage as a result of this pressure and if so, what impact do you feel this will have in terms of the ever demanding consumer?

The situation is actually more complicated than that. Saying that the majority of customers expect mainstream blockbuster games/movies/songs/etc is right, but it doesn’t automatically mean that all AAA titles have only washed out, déjà vu ideas and gameplay mechanics. Every now and then you get to see that one out of ten high budget games comes out with a really amazing concept and visual effects.

On the other hand, one of ten independent games also bears innovative potential. But the sheer quantity of man-power and resources that the large studios have, makes B-title productions appear inept, unfinished and “unsexy”. Large scale productions always seem to be in the “win-win” position, since even if the product doesn’t sell well, they have resources and funding powerful enough to commence work on the next production, sometimes even two or more in parallel. Smaller studios, once having failed to deploy a well-selling title, can’t survive in open water long. There is no “insert coin” option for them.



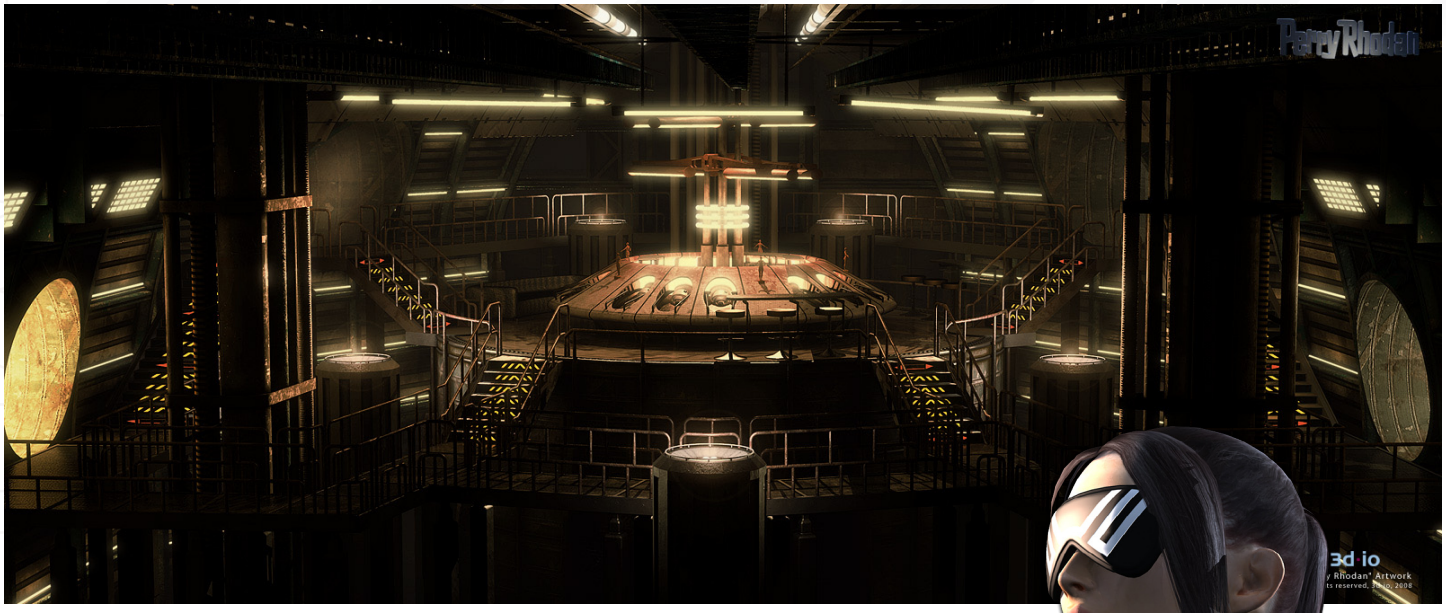
Tell us a little about Perry Rhodan and the challenges and rewards of working on the project?

Perry Rhodan, created in Germany in 1961, is the oldest and largest space saga of all time. Since its conception, more than 3,000 novels have been published, including over 2,400 weekly serialised booklet novellas, making it the most ambitious futuristic story ever written. Perry Rhodan is the main character of these novels and of our adventure game.

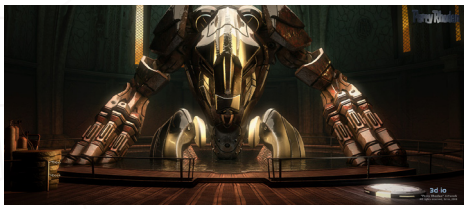
The challenge of such a project was an old designer dilemma: striking a balance between what is there and what we would like to have. The source material is similar to Star Trek and there is a decades-old stylistic look and feel which is burned into the heads of the fans. We had to take it apart and redesign it under the assumption that only a few people today would buy a game with Flash Gordon haircuts and weapon designs. We had to find the edge between “Perry Rhodan Trademark Style” and “Modern Game Design”. Throughout this process I was unsure about the fan community, since they were both a help and a curse, and we were never certain that they would like the modernised results in the end. Luckily the community did approve and the reviewers in magazines were flabbergasted: we got a marvellous 80%-85% overall, a score I am very proud of considering the strong competition in the market.

Can you describe some of the techniques and principles behind the real-time 2D/3D compositing that you have developed in conjunction with 2.5D adventures?

We suggested at the beginning that the game should be a full 3D real-time game, but



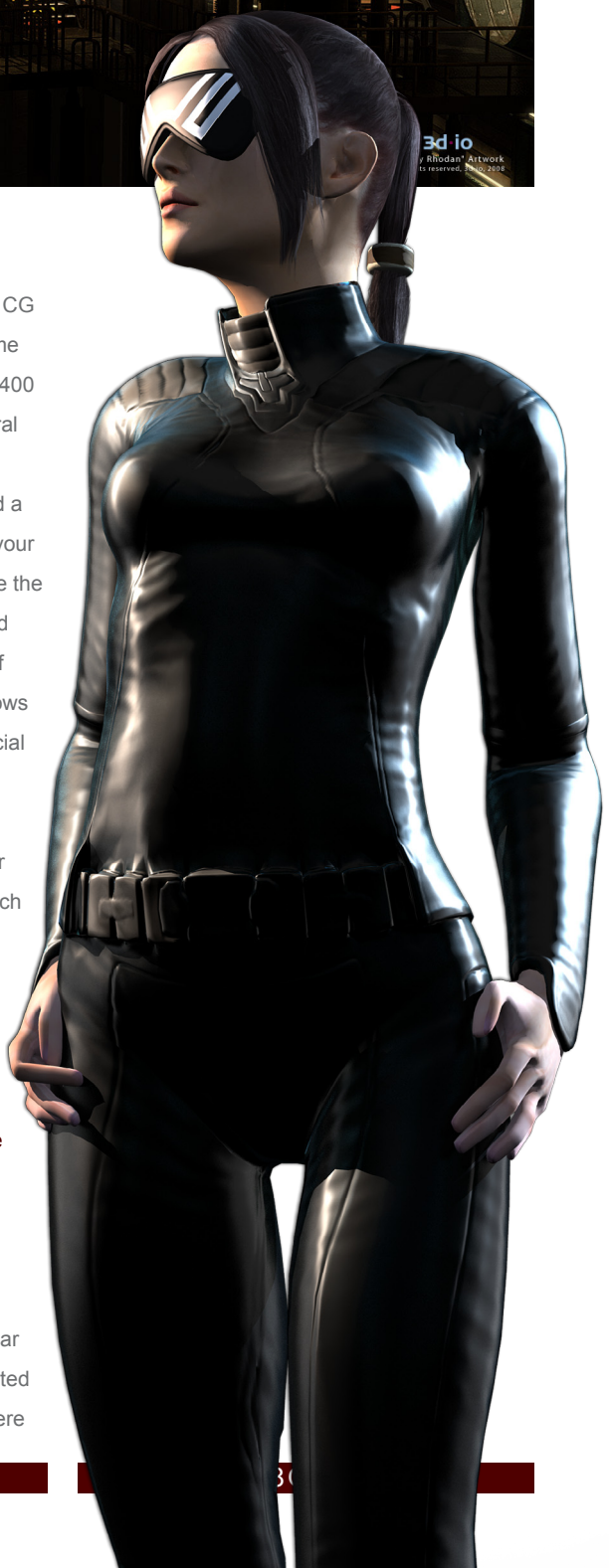
the publishers wanted to keep it compatible with the traditional adventure style of playing and assure the playability on less powerful computers. Adventures are mostly a domain of older players, or people who like to take their time while playing, and a lot of female players love traditional adventures. We couldn't demand NVidia 6800 as the minimum graphics requirement, as it usually is with full 3D games. So we turned towards the 2.5 hybrid mode and thanks to our own fully scalable Elasticity Engine, we were able to keep the game playable even on Geforce 3 Cards.



We put our effort into developing a look and feel that was more reminiscent of a Title production - adding 30 minutes of rendered CG movies, more than 60 highly detailed in-game characters with real-time lip-synching, over 400 in-game cinematics and a beautiful orchestral soundtrack. A combination of those visual and acoustic tools and techniques produced a cinematic feeling at the end: you walk with your 3D character across a space platform above the city, where spaceships fly around above and beneath you, steam and smoke come out of leaking pipes, the real-time raytraced shadows are cast over all objects and dozens of special effects are blinking, moving or displaying on the screen. As the magazine reviewers commented, an immense amount of love for detail and atmosphere was invested into each screen.

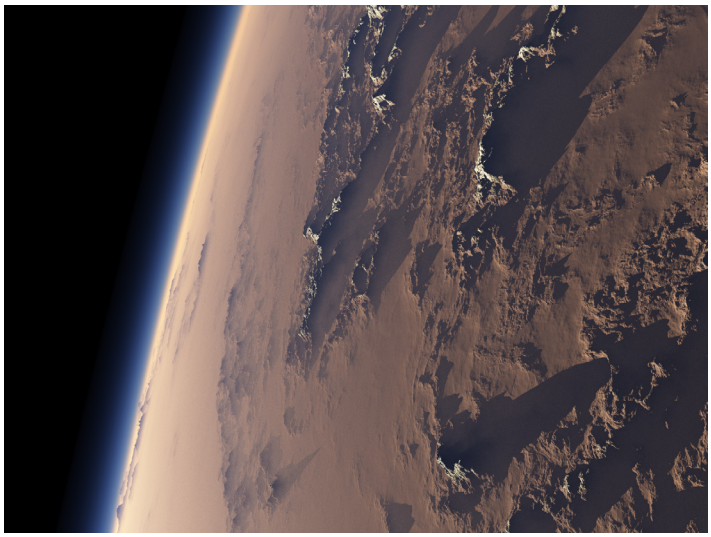
More and more games companies are starting to "farm" out much of their work to companies such as yourselves. Do you see this as a phenomenon that will continue to grow and how do you think this will affect game development as a whole?

You all probably remember the stories from the second and third decade of the last century. There was a war in Hollywood, a war of film formats and production studios. It lasted for almost 20 years, and at the end there were



only five monopolists remaining. The same story was later repeated with the music industry, and it is now happening with game studios. Game production has matured, and it is accepting the rules we know from other markets. In the game industry we are currently witnessing huge studio fusions as the publishers are trying to concentrate all the distributed fragments under one roof. Many of our friends and competitors are already a part of a "bigger machine" and are no longer free on the market. This can be explained as a result of resource optimization. Publishers having a few graphics studios attached to their own development teams have much more influence on production time and prices. Instead of booking some graphics studio each time (which gets expensive) it is often cheaper to "buy them all", have them in-house and producing the stuff on demand. This availability reduces the costs and circumvents contract negotiations and long and difficult mile-stone approvals.

Depending on the strength of the studio, you can remain an outsourcing studio or, like us, start discussing the possibility of merging into a bigger unity. I personally don't think many studios can survive on their own. In a few years we will have a completely different landscape of services (except for digital painting and concept art - these work very well for stand-alone studios due to the short production time and localised, specific tasks).



The acquirement of smaller studios by global giants is a current trend as you rightly say, but if the industry was filtered down to five large corporations, do you think this would have an effect on the number and genre of games available to the consumer?

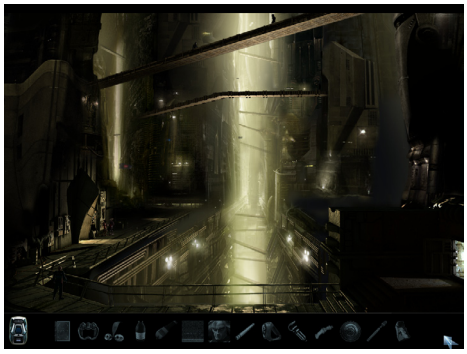
It is already happening: the Big Five are following some strict rules of profit augmentation. This is nothing new, and this is not necessarily bad - the genres and products that sell best will survive. It's natural selection within the consumer market. We can complain, we can yell about the bad taste of the average gamer, and kick and mock, but that's all. It's like the theory of evolution: *Fifa 2008* will sell well, and then no doubt we'll eventually end up with *Fifa 2017* (despite the fact the most people already start rolling their eyes when they read that, once more, another "almost identical" Fifa

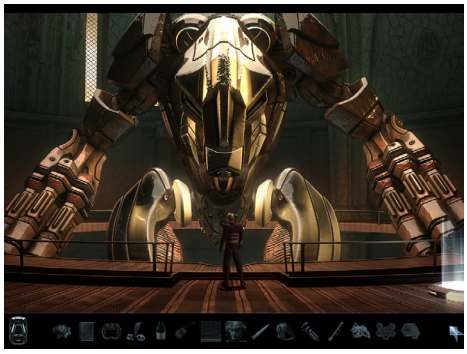
update is coming out. It's like Christmas, or Madonna's new CD - once a year you simply know what's going to happen, and when). On the other side, Perry Rhodan (the game) probably won't get a successor, since it didn't manage to generate sufficient income. And if it didn't pay off, there's no incentive for a major publisher to develop the sequel any further, regardless of how nice and ground-breaking the original was..

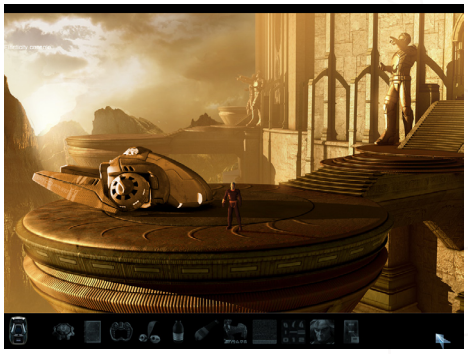
The good news is that by fusing smaller studios together in the always-growing market, even the major publishers often try to launch unusually bold experiments. Without such encouraging

signals, we would actually never be able to see impressive and innovative games such as, for example, *Shadow of the Colossus.* Or take a look at *Call of Duty 4*; despite the fact it is simply a purely commercial war shooter, it is also an awesomely directed piece of combat simulation. A small game developer studio, such as ours, would never be able to complete such overkill in organisation, fine tuned gameplay and artwork.

I think small studios, at least those which have survived until now, will still be emitting some fresh impulses, wonderful innovative ideas and gameplay mechanics and principles here and there, before they eventually get swallowed by bigger companies. These impulses and ideas are indispensable for the software market; they represent the pool of fresh genes needed for the evolution of the game industry.





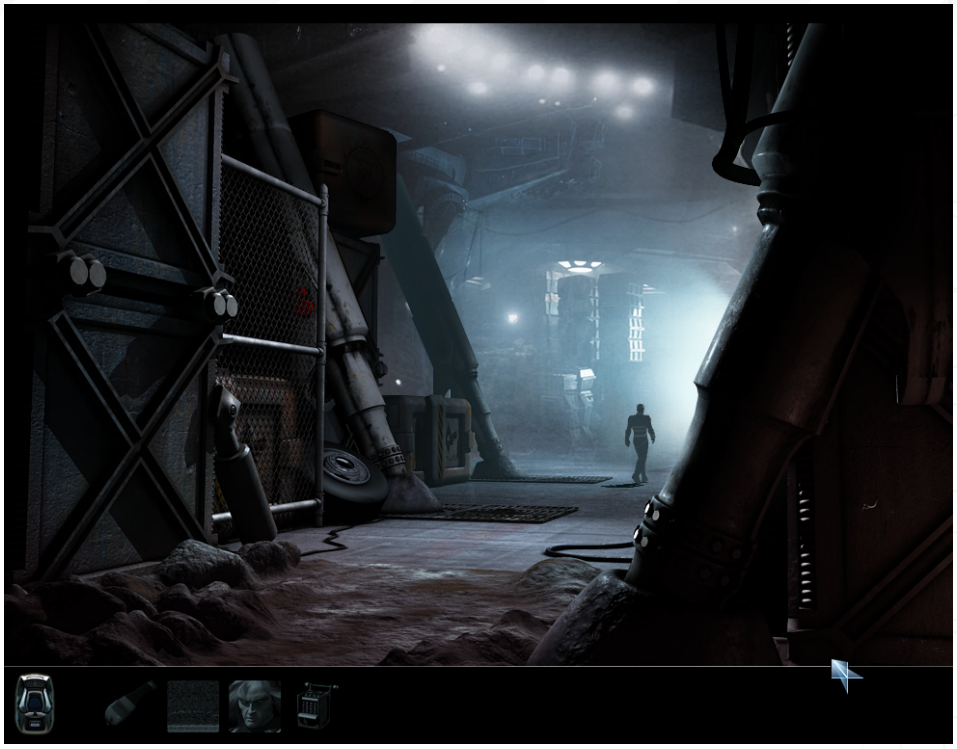


What have been the most memorable moments in the history of 3D-IO?

Oh, do you want the completely terrible stories or just those with a bad ending? [Laughs]. Here is one typical case: imagine you have successfully finished an important game project after one year of hard development, everything works perfectly and all that remains is delivery of the Golden Master DVD for print production. The courier is scheduled to arrive at 20:00 to pick up the DVD. I bought very expensive high quality RW-DVDs especially for this purpose and we burned them at single speed all day, just to be sure that everything was secure. After the DVD and backups were burned we put the first one into a test computer and... Bang! Read/Write Error! Well prepared, I had the second excellent DVD ready... BANG! Again: Read/Write Error!

Pure panic set in and the courier was already at the door... We finally used a cheap DVD (bought for a few cents), burned it at maximum speed, tested it and everything worked perfectly. I think I aged 10 years in those two hours!

Near the end of the *Perry Rhodan* production, the mastered movie of the game's intro was done in our second art studio and the artist was on the way in his car to deliver it to us on a hard disc. Like in a bad movie, the car overheated for some reason and literally exploded during the trip. I hurried in my own car to meet up with the artist and help him, and when I arrived I found him standing between firefighters, tightly holding on to the hard disc and his Wacom board - these items he'd automatically grabbed during those critical moments when his car was exploding ...



Wow, those sound like two very near misses - only too glad to hear the artist was okay! It's been a pleasure talking to you Igor and thanks for the insight into 3D-IO.

Thanks to 3DTotal for these involving questions. I hope this interview has given a sneak peek at the backstage of the game development. I hope we'll talk again soon - maybe when we've finished our next block buster!

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Article courtesy: Richard Tilbury

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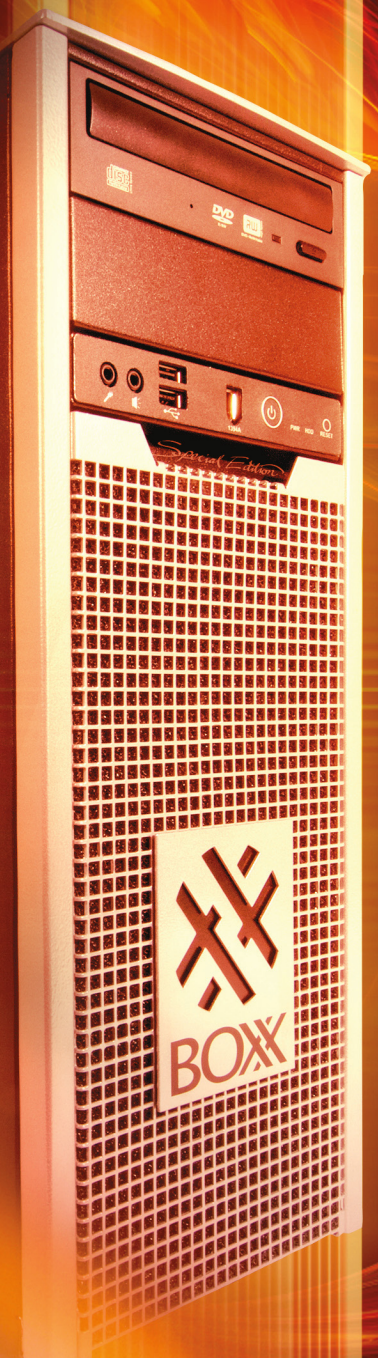

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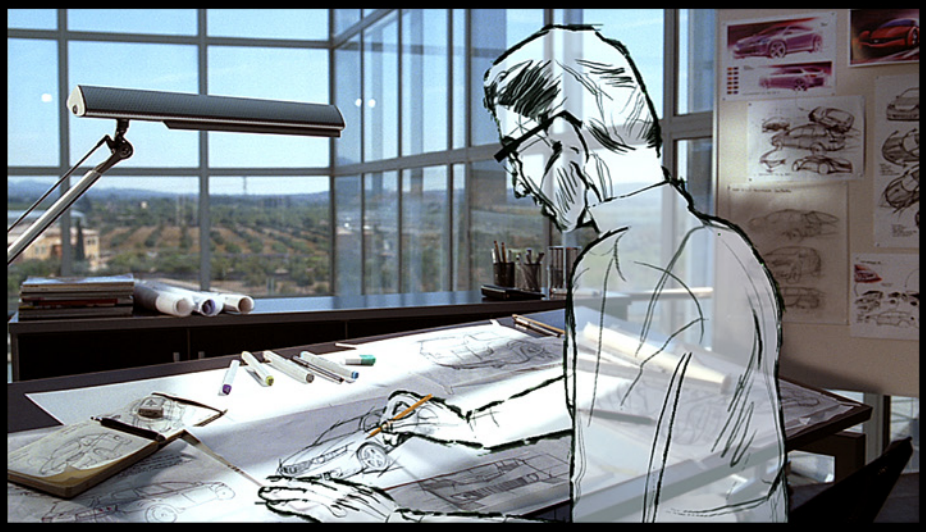
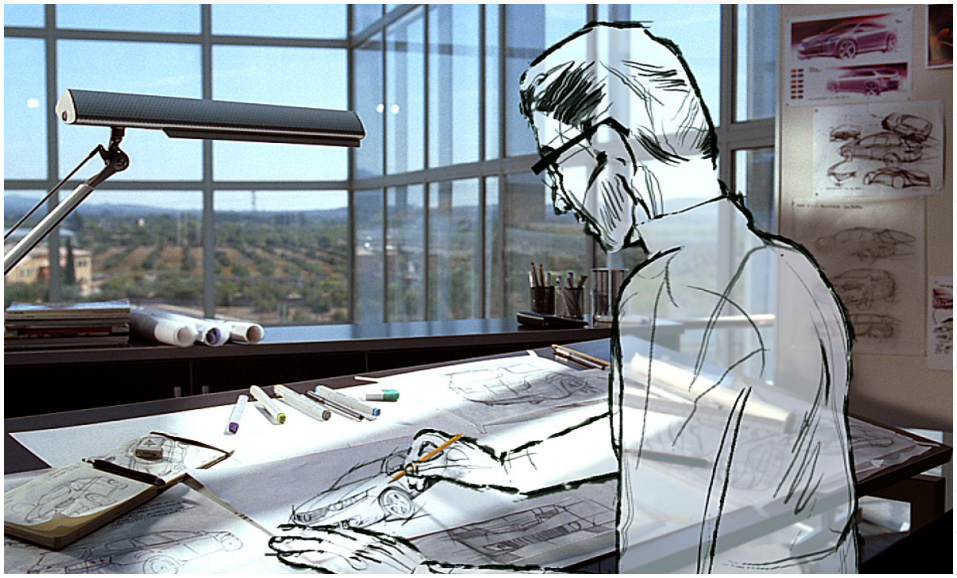
"The last challenge was the driving sequences of the real cars, which were shot on a small race-track in Mallorca. The main issue here was the reflections of the huge camera car in the side of the Honda. As there was no easy way to paint these reflections out, the whole side of the car was replaced with 3D car paint."



Honda L.O.V.E

We get a look behind the scenes of Unexpected's latest offering: Honda L.O.V.E.

Honda L.O.V.E

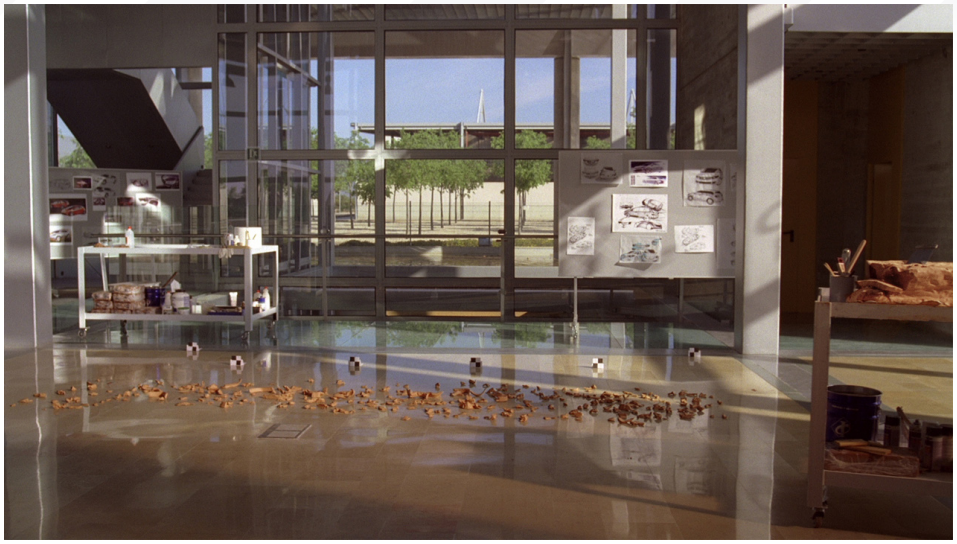


How do you show the passion with which the new Honda Accord is made within the short time of just 30 seconds? Well, pretty simply, with a spot that shows the development of the car from the very first sketch to the final car! The idea was to grant the viewer a sneak peek behind the scenes. This was the concept of the new Honda Accord spot developed by the agency Scholz & Friends Hamburg, which came to Stuttgarts's post-house Unexpected, through the production company Cobblestone.

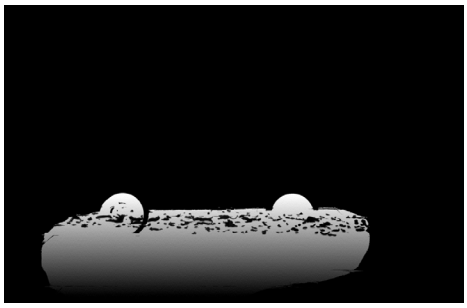
As there was not too much time between the awarding of the job and the shoot, the VFX department at Unexpected split up into two teams: one team prepared an animatic to get an overview of what had to be shown and which would be the best way to tell the story, and the other team immediately started work on the shading of the various materials of the design-stages. As always, the animatic already had all the planned camera moves and rough animations in it, which made it easier in the end to define the locations. As another advantage, this also enabled the directors to communicate more easily with the camera crew with regards to the movements and speed of the camera travels.

The whole story starts in the design studio, where the car is sketched and designed on paper. As the intention of the spot was to show the love the creators have for the car, the characters were made out of the same material as their work. So, as the first scene was about sketching the car, the designer itself also had to be drawn. It did not take a long time to find out that – timing wise – it would have been impossible to really draw the character. In the world of commercials it is quite a normal thing

to change animations during the approvals or to come up with an idea of a completely new design. That's why the decision was made to go for a 3D animated designer. Regarding the look of the character a cartoon shader just did not feel like the perfect solution as it always felt digital and – more importantly – it did not match the look of the drawn car. Due to this, the character was unwrapped and textured with a hand-drawn texture consisting of a 3-frame cell animation. This – in addition to several After Effects distortion filters – created the desired look. In the end, it turned out to be the right decision to go for 3D animation instead of 2D, as the animation of the designer and the overall design was changed several times.



One would think that the wireframe characters would have been easier, as they already consisted of a wireframe. But the real mesh just did not achieve the look the creators were longing for. Some parts needed more details



and some just had too much, so the bodies were unwrapped again and the wireframe textures were painted in Photoshop. This way it was easier to add small details here and there and leave them out where they were unwanted. The look of the two characters obviously had to be digital, which meant that the bits and bytes should work on their bodies and that they should flicker every now and then. This was achieved with several render passes and a combination of various After Effects filters.

As the computer operator was to work on a 3D model of the car with his "SensAble" input device, it was important that the movements he made with the device would be reflected in the rotating movements of the car on the screen. This was solved with a simple link constraint, which was connected to the middle of the device. The key frames of this dummy were baked and the car was linked to this dummy, which now exactly followed the hand's movements.

Showing three characters forming a 1:1 car model out of a huge piece of clay was the next task. The background plate was shot in the huge entrance hall of a glass building in Palma de Mallorca. Production took place on the Spanish island due to more stable weather conditions for outdoor shooting, so the indoor location had to be shot there as well. This working space had to be very bright and warm – a comfy place to work. To avoid ending up with a picture that looked too digital, the art department created hundreds of small clay pieces which were scattered around the car. Of course, there was no car, but the tracking points and stands gave a good orientation of where the car would be. Having real elements, like those small organic pieces of crumpled clay, made the image more believable and helped to integrate the digital car and characters much more effectively.

Reflections had been problematic in this shot, as the windows in the background reflected onto the marble floor. They had to be removed where the car's reflections needed to be. This was solved with a small trick using camera-mapping and reference pictures which had been taken on set. The whole setting was photographed from every angle, also from a top view. This image of the marble tiles was projected flat onto the ground and mixed with the real footage in Photoshop. Then it was projected back onto the floor out of camera perspective, which wiped out the reflections. To get a mask to remove the reflections only where necessary, the car was made 100% self-illuminated white and the floor was a black mirror in which the car reflected, creating a smooth matte.

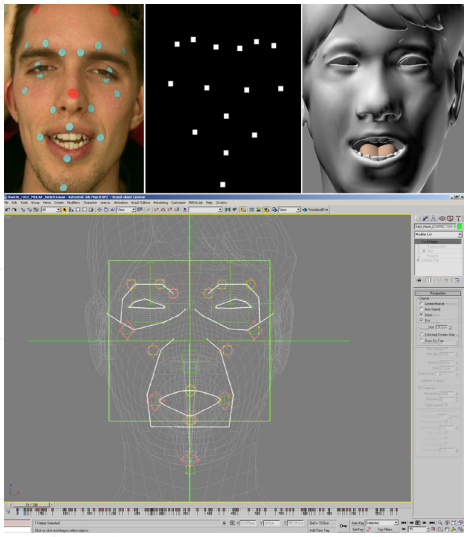
During the creation of the clay scene it came up that it would be an interesting effect to see the character that forms the side-mirror coming out of the window, instead of already hanging out of it. This was not an easy thing to do as the seam between the character and the window had to be round and smooth, not sharp-edged, and it had to look like the character had been formed out of the clay car. So a setup was created which made it possible to blend between the window and the rigged character. The mesh of the window was highly tessellated and linked

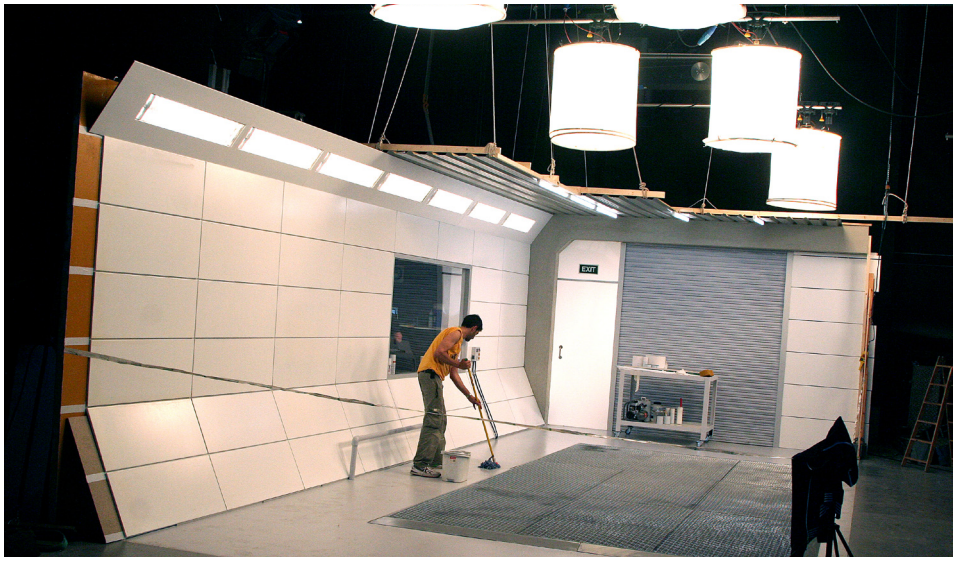
with an XForm to the mesh of the character. The setup had several control dummies, which allowed the ability to manually adjust the movements. In the end, most of the control dummies had one key frame per frame to make the transition as smooth as possible.

The paint shop sequence was set up in a huge studio at Palma Pictures. As the camera crane had to make a huge movement, the decision was made to build only half of the paint booth which then allowed the crane to perform the planned move. The real car was parked on the grid floor and all the necessary parts were masked with brown paper, as it would be done in a real paint shop too. This gave the paper a realistic look and a perfect shadow interaction on the metal grid. The lacquered metal parts of the car had to be replaced with a digital car to match the exact colour tone of the digital varnish.

The scene was 3D tracked with Syntheyes, which worked very precisely. The 3D model of the Honda Accord was placed in exactly the same position as the real car and was masked out where the paper had to be. The spray on the paper was added via camera mapping to create a smoother transition to the metal parts.

The fine spray-mist was another task. As 3D simulations just did not create suitable results the decision was made to film a real airgun





varnisher in front of a black cloth. The filmed material was keyed with a luma key and textured on a plane which was linked to the 3D spray gun. The twirling mist floating over the car was solved with HD footage of the Niagara Falls, which the directors shot a year ago, knowing it would be usable some day. Although it sounds like a cheesy solution, it totally did its job for such a short sequence and looks more real than any high-end fluid simulation!

As the timing was pretty tight for everything, the artists at Unexpected wanted to go a different way for the facial animation, as all the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characters had to sing the same song. So they developed a facial setup which made it possible to control the face with tracking data from a real face, and add hand animation on top of it. The face was controlled by several splines lying underneath the mesh. The splines, linked to the dummies which contained the tracking data, were the basis for the skin of the face. This way all the small movements of the real face could be transported to the 3D characters. All in all, this way of animating a face saved only a little time as the animators had to tweak it quite a lot, but the advantage of having all the small and little movements of a real face on the characters was worth it!

The last challenge was the driving sequences of the real cars, which were shot on a small race-track in Mallorca. The main issue here was the reflections of the huge camera car in the side of the Honda. As there was no easy way to paint these reflections out, the whole side of the car was replaced with 3D car paint. A good thing about commercials is that most of the shots are quite short, which doesn't make it too hard to get this kind of match moving job done, since the shot was never intended to have a 3D track to get reflections and camera movement right in 3D space. A moving 3D plane with photos of the race track was placed right next to the 3D car and matched the car's object track manually. The digital reflections blended into the real reflections seamlessly after a tough colour-correction job. And the pack shot finally looked the way it was meant to be!

The spot first aired at the end of August in more than 12 European and about four non-European countries. Directly after finishing the Honda spot, the Unexpected team headed into another job for the Russian market, which has not yet been aired. There will very soon be a new “Snickers” spot from the guys at Stuttgart, so stay tuned!

CREDITS:

Agency: Scholz & Friends Hamburg
Directors: Alex & Steffen
DoP: Maher Maleh
Production Company: Cobblestone, Hamburg
Executive Producer: Pieter Loney
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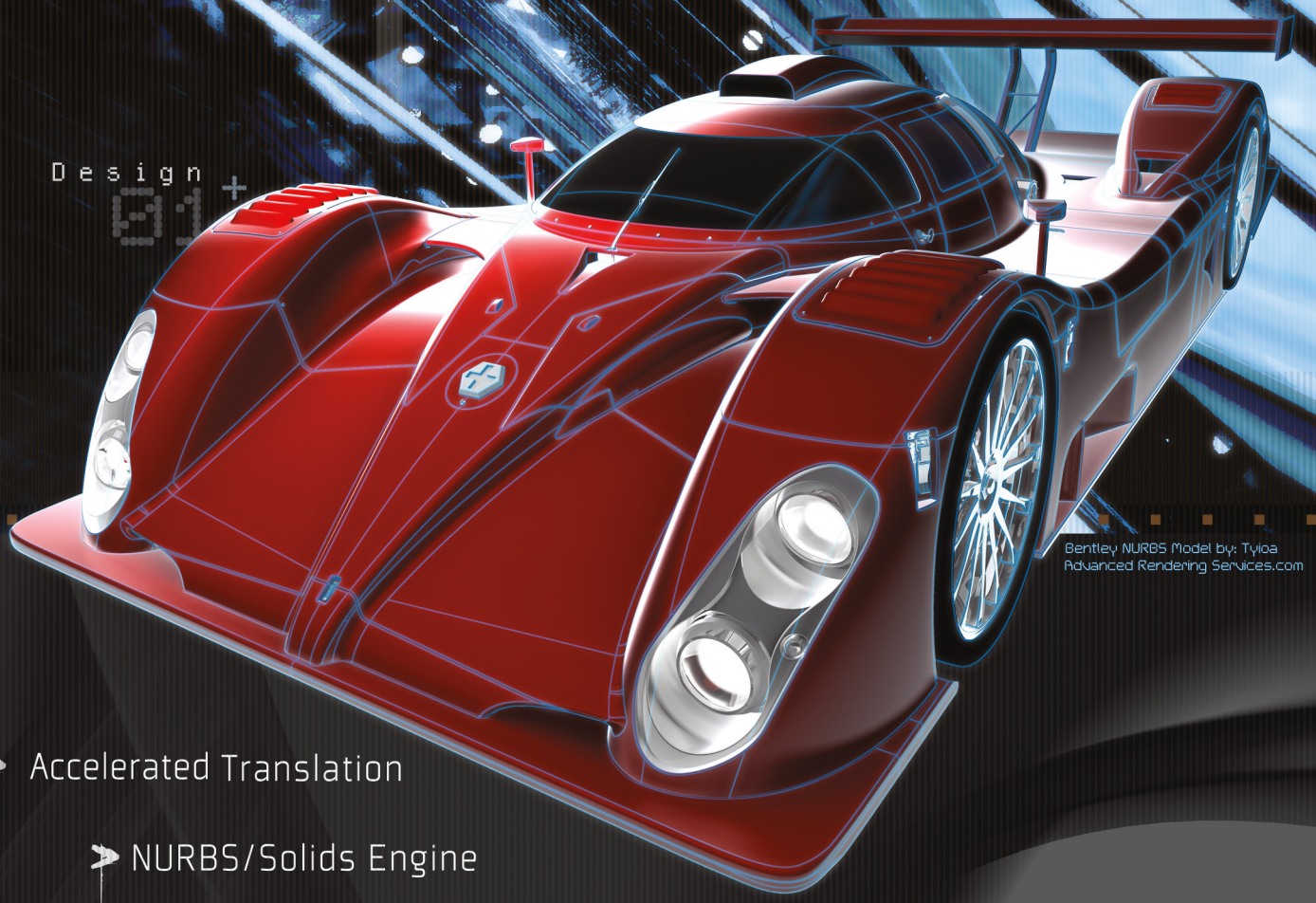

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THE GALLERY

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Denis Syplenko

Won Gyo Lee

Martin Carlsson

David Fraher

Neil Maccormack

Tudoran Liviu-Cosmin

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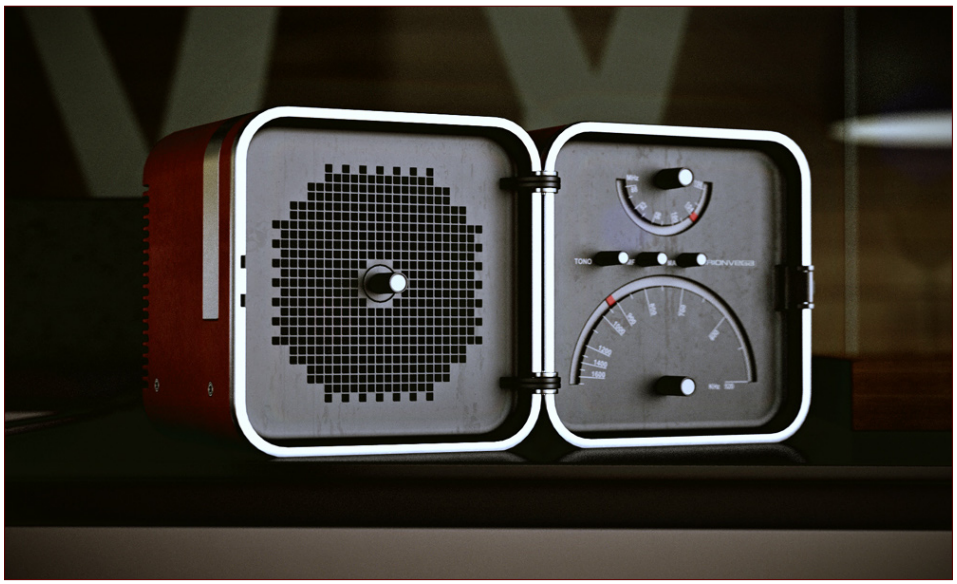

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Child of the Apocalypse

Valentin Yovchev

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3D Modelling & Composing Artist, Valentin Yovchev

(Original 2D Concept Artist, Serj Iulian)

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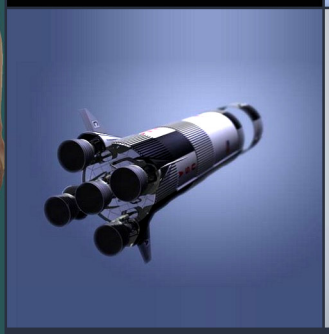


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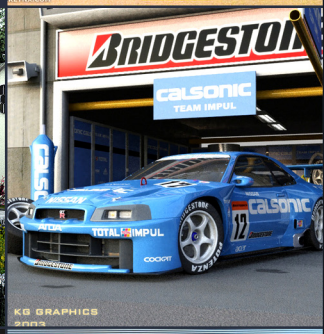



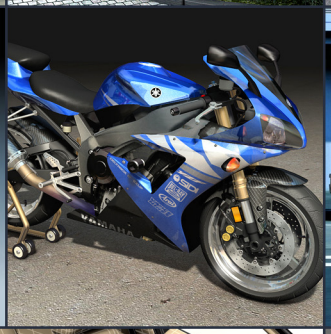
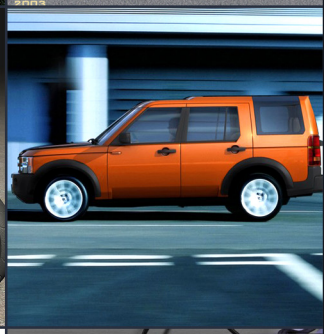

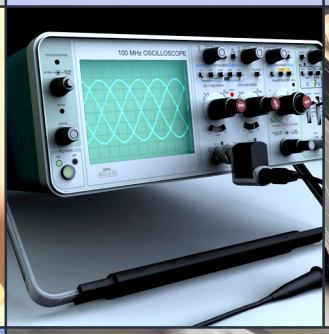




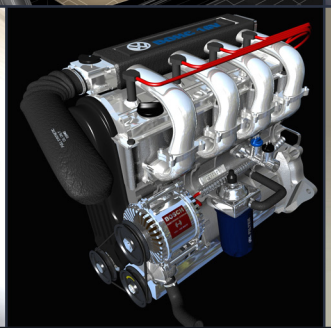


Creating a Complete Scene From Concept to Render

This series will run over the next six months and will endeavour to give you an insight into how a fully realised 3D scene may be arrived at from beginning to end. The tutorials will attempt to address the key issues and techniques appropriate in achieving this, from concept sketches through to building the 3D scene, mapping and unwrapping, texturing and eventually to lighting and rendering, culminating in a final render. The emphasis over the course of the series will be on the texturing, which will be covered in two of the six instalments, and principally the aging and wear of materials.

The schedule is as follows:

Issue 037 September 2008

Part 1: Importance of Reference

The series will begin with a look at the gathering and importance of reference material, and then transposing these into some concept sketches and a concept / production painting.

Issue 037 September 2008

Part 2: Modelling Overview

This chapter will go on to deal with a general modelling overview, which will be non-software specific, and then follow with a look at Photoshop and some general preparation of textures.

Issue 038 October 2008

Part 3: Preparing the Textures

This chapter will focus on Photoshop and more specifically, the job of preparing textures, including painting out seams and making images tileable.

Issue 039 November 2008

Part 4: Mapping

This chapter will focus on the mapping and unwrapping of your scene

Issue 040 December 2008

Part 5: Texturing Principles

This chapter will focus on texturing principles and will cover texture resolution, bump specular and normal maps along with combining textures. It will also cover using masks and adding dirt and grime

Issue 041 January 2009

Part 6: Lighting & Rendering

The final chapter will discuss lighting and rendering techniques and show how a simple lighting rig can be set up, along with different render passes ready for a final composite in Photoshop.

AGED & WEATHERED ENVIRONMENT

CREATING A COMPLETE SCENE FROM CONCEPT TO RENDER

PART 3: PREPARING THE TEXTURES

PREPARING TEXTURES

In our previous tutorial we ended by looking at some of the factors that affect the choice of photos to be used as textures. We discussed the notion of scale and resolution, as well as tiling issues and how lighting conditions can impact on the success of a texture. You may recall that a soft ambient light, without any strong shadows, is crucial in order to achieve an ideal texture, as we will rely on our 3D package for further lighting effects. Even under these conditions no photo is able to tile perfectly and this is where the Offset Filter comes in. In order to test the tiling of your chosen photo head to the menu: Filter – Other – Offset. A small dialogue box will open, similar to that seen in **Fig.01**. Enter a horizontal and vertical value that is exactly half the width / height of the image (this image is 1600x1200). The horizontal and vertical seam lines that are visible across the centre represents the four outer edges, and in order for this image to be tileable these seams must be made invisible. You can see the dark band down the middle and why this needs to be eradicated. This is typically done by using the Clone Stamp and Healing Brush tools in Photoshop and by sampling other areas of the image to hide the seam.

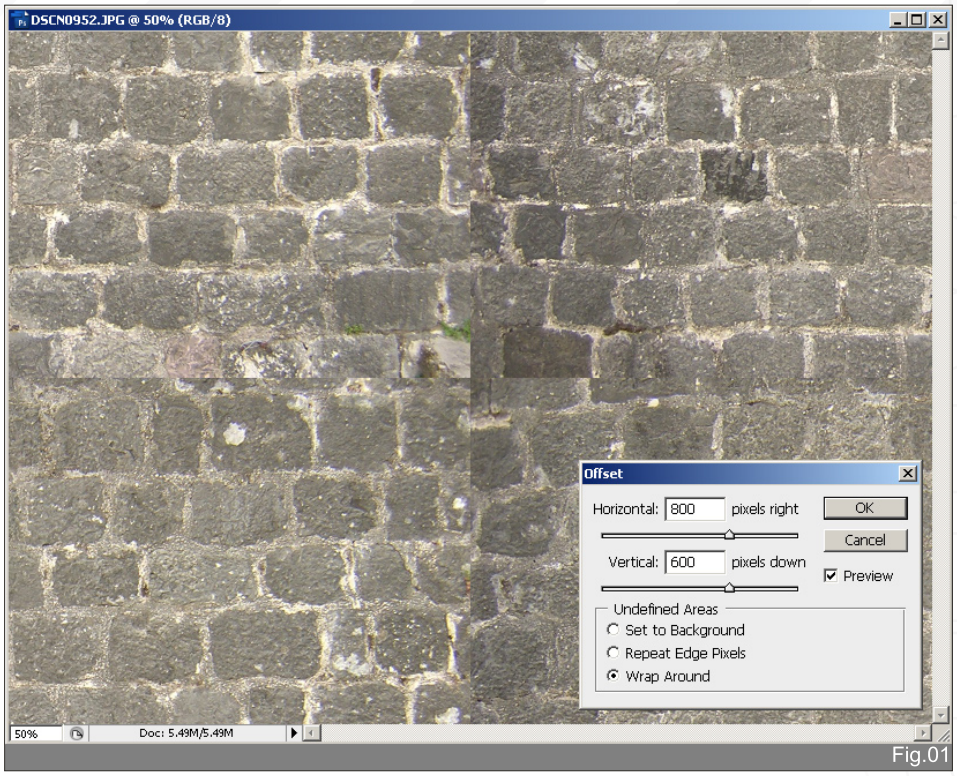

Fig.01


Fig.02

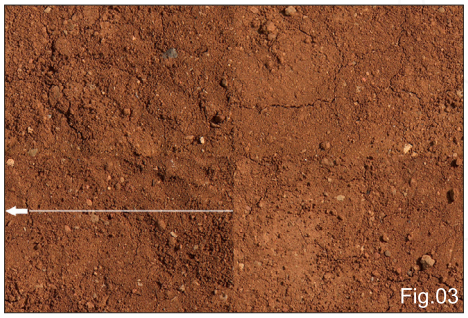
Fig.03

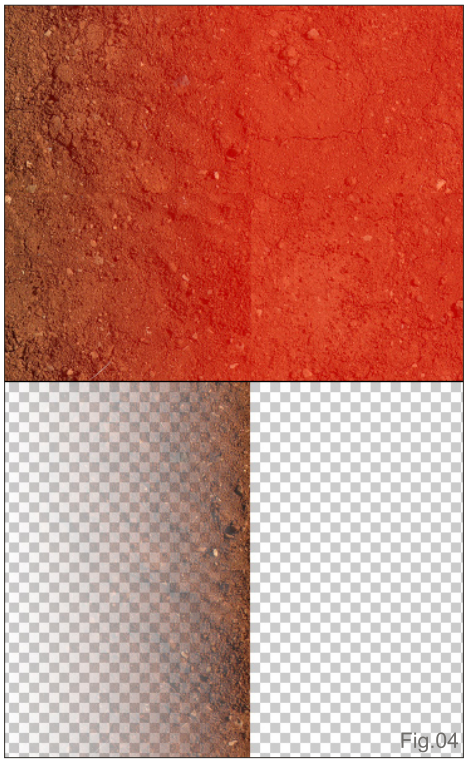
Fig.04

In **Fig.02** you can see the same image, which has now been made tileable through the central region. The small conspicuous white spot middle left has been removed, along with the two dark bricks on the right hand side which would have caused a problem. It is important that you do not alter the outer edges, as these will revert to becoming the central section of the image again, which is initially seamless. With something like brickwork or ceramic tiles you must obviously make the pattern of the grout or mortar match up by way of skewing and transforming sections of the image, but even when this is done there still remains the problem of hue and tonal variation. With a less ordered image, such as dirt or gravel, it is easier to cure the problem of a seam and the process can be broken down into three stages. These are also the stages that would follow the tiling of brickwork once the issue of matching up the mortar is resolved. Assuming the Offset Filter has already been applied, the first step is to copy and paste one half of the image into a new layer. This can be horizontal or vertical depending on which seam is the most severe. In the case of **Fig.03** it is the vertical line. With the left hand side on a new layer, switch to Quick Mask mode making sure the foreground colour is black and the background white. Drag a linear gradient from the centre edge to the outside


Fig.05


Fig.06


Fig.07

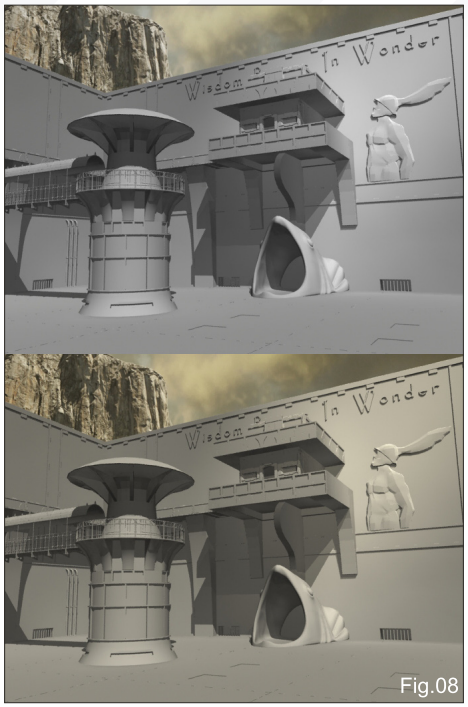
Fig.08

edge (white arrow). The image will resemble the top half of **Fig.04**. Now turn off Quick Mask and you will see a selection area encompassing the left half of this layer. Delete this section and you will be left with what you see at the bottom of **Fig.04**. This exercise constitutes stage 1. By manipulating the Brightness/Contrast (Image – Adjustments) and maybe Curves under the same menu, it is time to match the tonal values as closely as possible (**Fig.05**). This has been done already in this instance and you can see here that the top area is almost seamless, but there is still a noticeable seam line in the bottom half. Using the Lasso tool drag a selection area around this area (highlighted in white) and then Feather it by around 20 or so. This value depends on the size and resolution of the image – the bigger the image the higher the value. Now using the same procedure, we reduce this seam as seen in (**Fig.06**) – stage 2.

The final stage involves using the Clone Stamp and Healing Brush tools to sample various areas of the image in order to manually patch up the two halves (**Fig.07**). This process can be applied to any image and by first using the Gradient and Lasso tools we can reduce the amount of “manual” work necessary when tiling a texture.

When any necessary textures have been made tileable, it is then a case of putting them together in the 3D scene and testing their relationships. As our perception of everything is dependent on light, I find it is often helpful to establish this aspect of the 3D scene early on. This provides a good indication as to which areas will be more visible and which parts of the scene will be less so. For a still image there is no point spending time texturing an area that is barely noticeable in the final render. In **Fig08** you can see an early light test where both scenes use exactly the same material. The top image utilises a pure white light, but as you can see, it does not reflect the colour scheme of the sky nor the concept painting for that matter. To help bind the background to the geometry I therefore added yellow to the lights. This inevitably affects the way we perceive the textures and any that contain a lot of green and yellow will be enhanced.


Fig.09


Fig.10

As all photographs differ in terms of the brightness and contrast, as well as the overall hues and tonal ranges, it is rare that a selection will work together without some intervention. As a result, it is necessary to use an application such as Photoshop to refine the images and ensure they relate successfully. In the upper half of **Fig09** you can see the base texture that I chose for the two main walls. I decided

on this because it tiled well and possessed the right scale for my purposes. The colour was obviously wrong as I wanted a general, tertiary grey, so it was necessary to tone it down by way of Image – Adjustments – Hue/ Saturation. This, combined with altering the Colour Balance on the same menu, usually solves the problem; however, with a "raw" photograph that has not been prepared in any way (unlike this example), the first port of call is usually Image – Adjustments – Curves and/or Levels (same menu). In **Fig10** we can see two examples of unedited photos. If we imagine that the tiling issues and uneven light were fixed, the two images would still not appear consistent in terms of their brightness and contrast. In **Fig11** I have altered the top photo using the Curves, Levels, Brightness/Contrast and also the Colour Balance, rendering them far more compatible. There is no formula to this process – it is a question of experimenting with the above tools until you get the required results. With all this said and done, the base wall texture in **Fig.09** was altered along with the building support (bottom half) so that they worked together in the 3D scene (**Fig.12**).


Fig.11


Fig.12

Perhaps the best example of why making adjustments to base photos is vital for a 3D project can be illustrated in **Fig.13**. On the left is the final version and on the right are the same textures but mapped in their original format. There are numerous layers combined in the two maps, including dirt and rust which are the same on both, but this still conveys the importance of good preparation. The stone work in the final render has had the blue toned down and the two metal areas, which were initially blue and pink (along with the rivets from another photo), have been made more consistent and more closely resemble the concept. I hope in this tutorial I have shown the importance of using tools such as the Offset Filter and the various Image Adjustments and also how the transition of photos into textures is a crucial stage in the 3D pipeline.


Fig.13

In **Part 4** we will cover mapping and unwrapping and explain how these methods enable a greater control over the texturing process. We will focus on the different mapping techniques, such as Planar and Cylindrical, and show how mapped geometry can be duplicated to save valued texture space. The tutorial will conclude with a look at how the unwrapped geometry can then be exported into Photoshop as a wireframe guide, in readiness for the actual texturing.

AGED & WEATHERED ENVIRONMENT

CREATING A COMPLETE SCENE FROM CONCEPT TO RENDER

PART 3: PREPARING THE TEXTURES

RICHARD TILBURY

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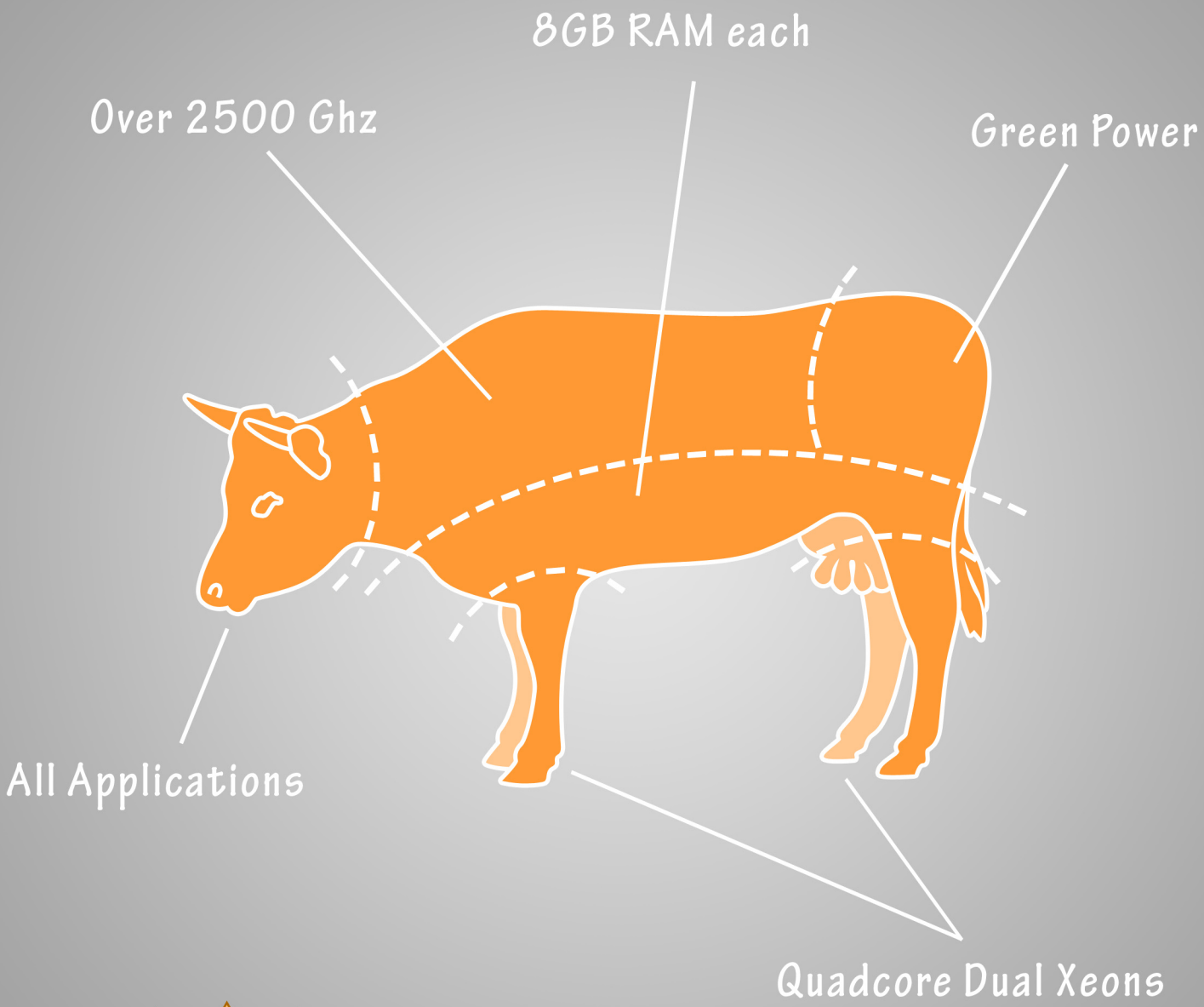

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AMPHIBIOUS MAN/WOMAN

Welcome to the brand new Speed Sculpting section of 3DCreative magazine. Each month we will give two talented ZBrush sculptors a brief and a base mesh from which they are to interpret and speedily sculpt a model within a suggested time. Here we will show the stages of creation of their “speed sculpts” in the form of mini tutorials. You will often find free movies to accompany these tutorials, and we hope that this new series will be successful and thrive for many months to come!

This month our two skilled speed sculptors are **Dalton Alves Muniz** and **Jesse Sandifer**, who are tackling the brief: **Amphibious Man/Woman**

If you’d like to follow along with these tutorials, we have provided the same free base mesh for you that we also gave to these two artists for their own speed sculpts. Download your own base mesh from the **Free Resources** logo below and get sculpting! Enjoy!

SPEED SCULPTING

DALTON ALVES MUNIZ

CREATED IN:

ZBrush 3.1

INTRODUCTION

Hello to all! Okay, let's start this speed sculpting tutorial on how to quickly create an amphibious man/woman. For my interpretation of this creature, I considered an elongated and graceful character, slender and hydrodynamic in appearance, and – hey, it's an exercise of the imagination after all, so use yours too! I also thought it might be cool to incorporate some fins – make it a bit more fish-like!

SCULPTING

With the base mesh provided (which you can download at the end of this tutorial), I divide the mesh seven times (Ctrl + D) (**Fig.01**). You can do this however many times you wish, though. I then go back to subdivision level 3 (Shift + D) to start work.

Selecting and isolating the head (Ctrl and drag), I move from Draw mode to Move mode and stretch the neck, limbs and torso of the model (**Fig.02**), developing my concept of an elongated, amphibious character.

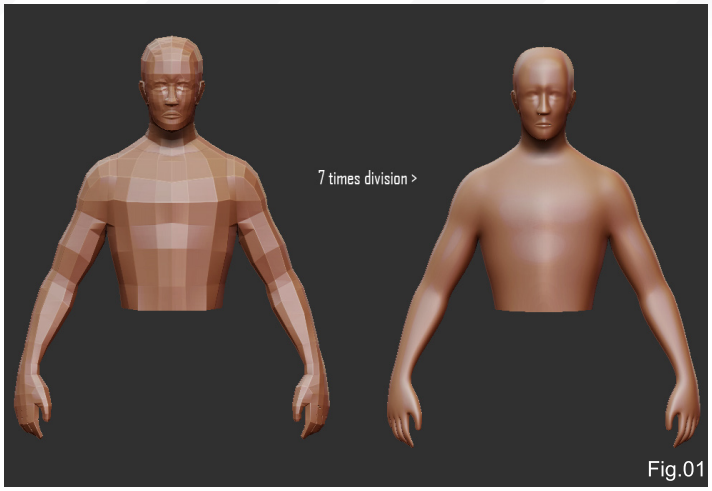

Fig.01

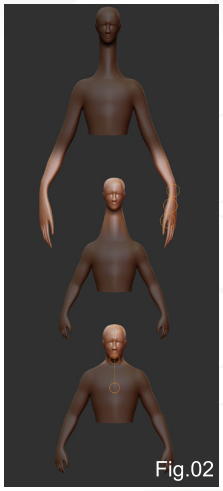
Fig.02

Fig.03

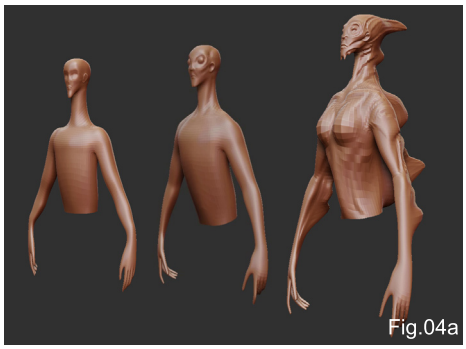
Fig.04a

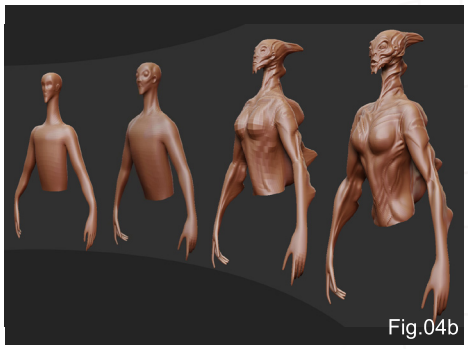
Fig.04b

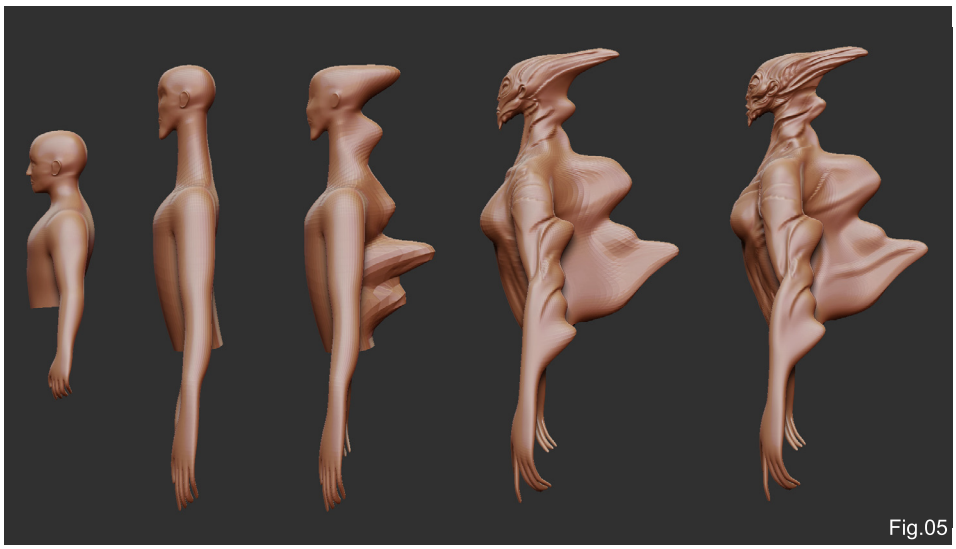
Fig.05

I always use the initial divisions to achieve the basic forms first, and then use the higher levels of subdivisions for the finer details. Once I'm happy with the overall shape, I go back to "Draw" mode to sculpt again. Here we will begin working on the shape and design of the head. The brushes I used most at this stage are Move, Slash2, Magnify, Inflat1 and Smooth, (**Fig.03**).

I initially use the Move brush to try and create a ridge on the character's back (**Fig.04a** – **b & Fig.05**), working on giving the character design an amphibious appearance, smoothing, softening and controlling deformations. Also,

with this model in particular, the Slash2 tool can be used widely because it provides precise cuts and bends, which are very useful for fins and such forms.

After defining the basic shapes, I pose the model, leaving Draw mode and going into Rotate mode, using Ctrl to isolate and select the areas and parts of interest (**Fig.06**). This exercise will distort some areas, but that can be corrected later on.

One of my primary concerns with this creature design is to create a sense of movement in the shape of the body using the fins (**Fig.07**). Using the Move – and sometimes also the Snake hook – tool, I am able to achieve this movement, and for details I use the Lazy Mouse function on some parts to get smooth, consistent strokes (**Fig.08**).


Fig.06


Fig.07


Fig.08

Fig.09

Going into the final stage now, I start to add some textures to the model for further detailing. In this case I use the default alpha textures, but there are infinite possibilities for this – it's up to you to choose what best suits your ideas! To apply alphas, I simply change the stroke mode from "Freehand" to "DragRect" and then "Spray", using and combining the alphas textures for the final details.


Final.01


Final.02

This amphibious creature was created in just 3 hours (**Final.01 – 08**), and I hope you have learnt something from its creation! I have also taken the opportunity to play around with texturing the final character model, the results of which can be seen in **Final.09**. Have fun sculpting!

Free Movies!

There are 11 movies accompanying this tutorial, all of which can be downloaded here! These movies have been sped up to show the three hour creation in just 11 movies – enjoy!

Dalton Alves Muniz

For more from this artist visit:
http://daltonmuniz.wordpress.com/
Or contact:
dalton_muniz@yahoo.com.br


Final.06


Final.07


Final.03


Final.04


Final.05


Final.08


VIEW MOVIE
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Final.09

JESSE SANDIFER


Fig.01

CREATED IN:

ZBrush 3.1

INTRODUCTION

This month's speed sculpting tutorial was all about designing and sculpting an amphibious man in just four hours! Concept-wise, I thought I'd go more along the lines of making something more frog- or toad-like with some hints of human form, rather than making a human with amphibious features. The main reason I wanted to take this approach was because I wanted to try something a little different. I've never modelled anything like a toad before. Although a bit nerve wracking, it's always a good idea to try and challenge yourself artistically like this sometimes!

I gathered some reference images really quickly and found some features I wanted to incorporate into the design of my character. I liked the big, unique ear design that I found some toads to have (**Fig.01**). I also liked the cool ridge that runs across the top of the eyes, as well as the warty-looking skin surface and rougher texture these toads have (**Fig.02**). I thought that might offer more visual interest in my character as opposed to doing a smooth skin. And of course, I really wanted to have a go at some webbed feet (**Fig.03**). I was disappointed to find that most toads and frogs have webbed feet only on their hind legs, and more finger-like digits on their forelegs. But since we're sculpting a torso with no legs for this speed sculpt, I thought it'd be okay to use artistic license and give him webbed hands. After all, I'm the one making this creature up, right? So let's begin the actual sculpting portion of this tutorial!


Fig.02

PART 01

I start off using the move brush to push and pull on the mesh to get the general flow and shape of the model to look more toad-like (**Fig.04**). I try to work only on the first couple of levels of subdivision at this stage. I make his eyes much larger, his mouth wide and thin, pull back and reshape his ears into that circular ear form, and blend his shoulders and neck into more of a trapezoidal shape so he doesn't look like a lizard (**Fig.05**). For now, I'll leave his hands alone and get into creating the webbed shapes later on. I'm not completely sure where I want to go with his design, but I have a general idea of making him somewhat chubby, like some of the toads I found while gathering references. So with this in mind, I bulk up and "chubbify" him up quite a bit, and work on making sure he has plenty of girth and weight by continuing to push and pull on his chest, shoulders and arms. I use the Move, Inflate, Magnify and Clay brushes during this process. Once I am somewhat happy with his overall shape (at least at this stage), I start working on clumping in forms that will define his


Fig.03

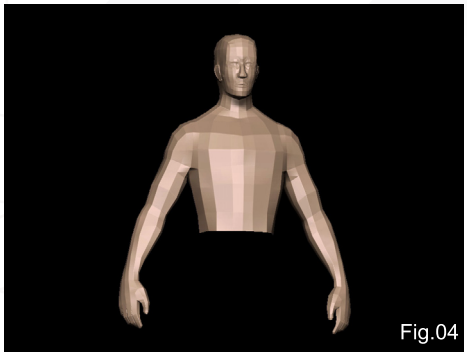


Fig.04

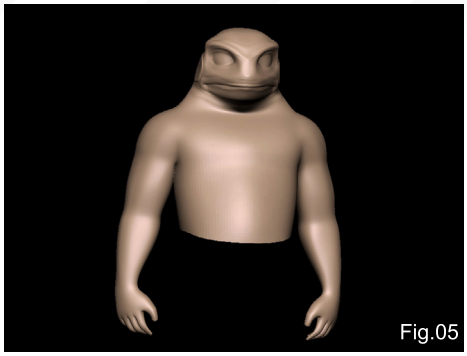


Fig.05

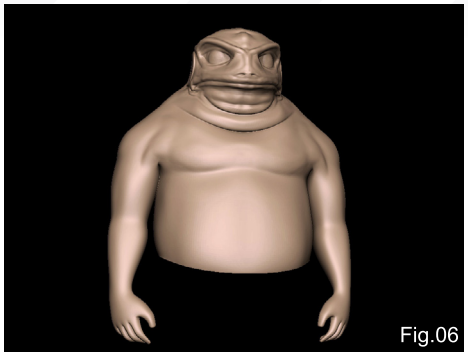


Fig.06

face as more toad-like. This consists of shaping out the lips, eyebrow ridges and nostrils. Again, nothing fancy here as far as brushes go, just more Clay, Inflate and Move action! I don't worry about wrinkles or anything like that right now, as I am just concentrating on getting the major "clumps" and character-defining features blocked in. I continue to work on his overall shape as well, now that I'm starting to see his face more clearly (**Fig.06**).

Another thing I thought about incorporating into this character was one of those cool throat swells that toads do! But after thinking about the fact that I was going to try and do something with a huge long tongue later on, I thought it would be better to just indicate some deflated throat skin with folds and bulges under his chin. To do this I need another fun trick lots of sculptors use: I mask out the area directly beneath where I want the fold to go and then used the Inflate brush right above the masked area to get a nice and quick overlapping shape going. I use this quite a bit throughout the whole sculpting session (**Fig.07**).

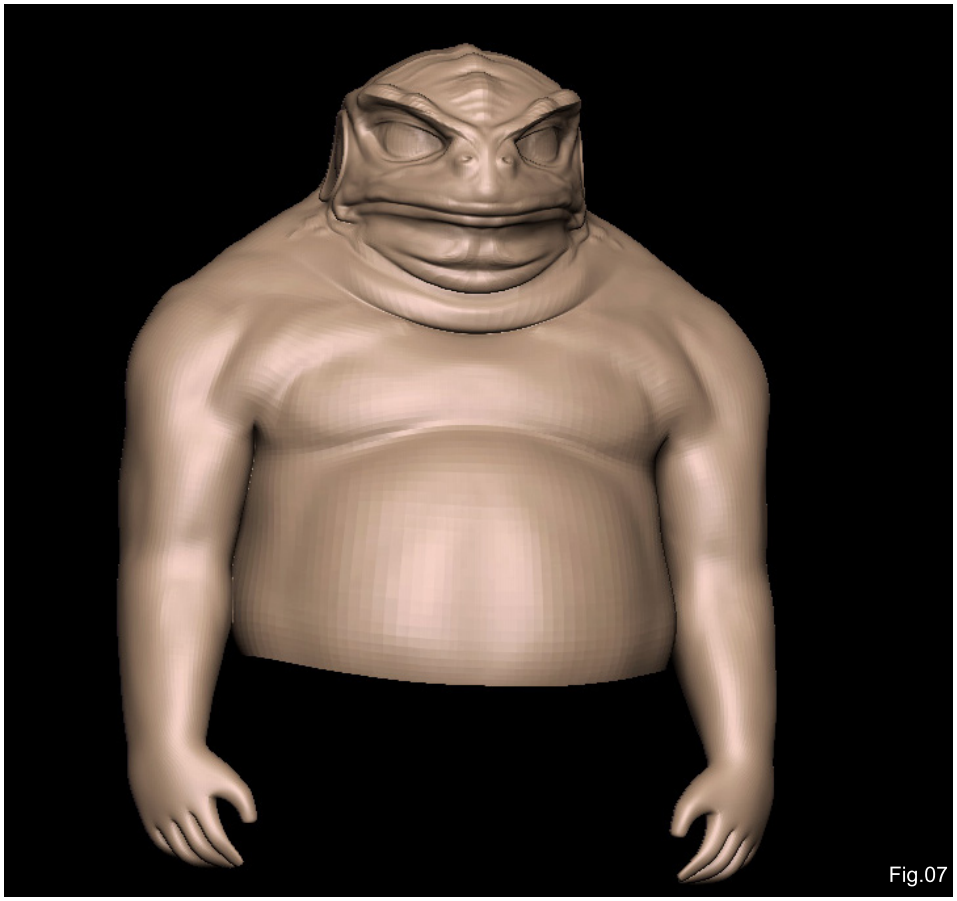


Fig.07

Downloadable Movie:

To view the first part of the sculpting progress, you can download **Movie 01** at the end of this tutorial.

Part 02

This is the part of the session that I start building upon the macro level forms. It's kind of the in-between phase before doing detail work. Consider it another iteration of design development that allows you to define the

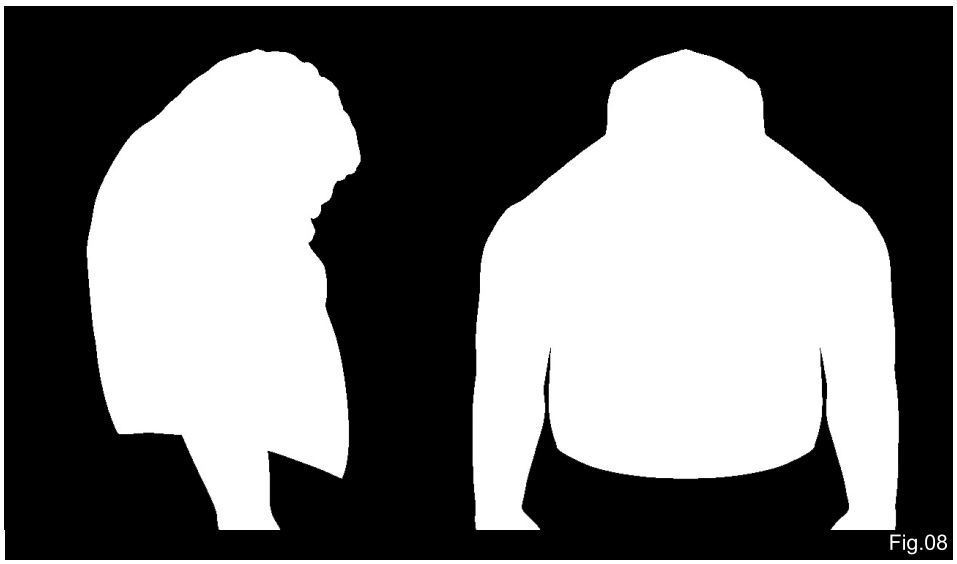


Fig.08

characteristics of the amphibious man without having to commit to anything quite yet. I start adding ridges to the top of the head and add more clarification to the facial features. I also continue on with sculpting the body forms, using a sort of mix of human and toad muscle anatomy. And of course, a bit of creative license! While puffing his silhouette out, I check it by slapping on a flat, white shader and checking the form I'm creating. It's a commonly used trick that works pretty well (**Fig.08**).

Once I'm pretty much satisfied with the silhouette, I decide to go ahead and use Transpose Master to pose him a bit more dynamically. After getting the basic pose going, I clean up the joints and transition areas and start to add more folds at the inner elbows, armpits and chest using some of the same mask and inflate techniques as I previously mentioned (**Fig.09**).


Fig.09

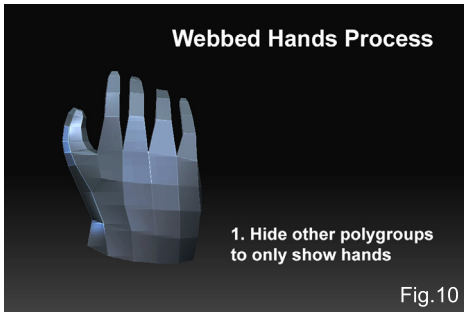


Fig.10

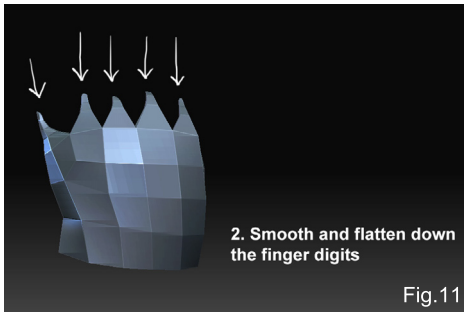


Fig.11

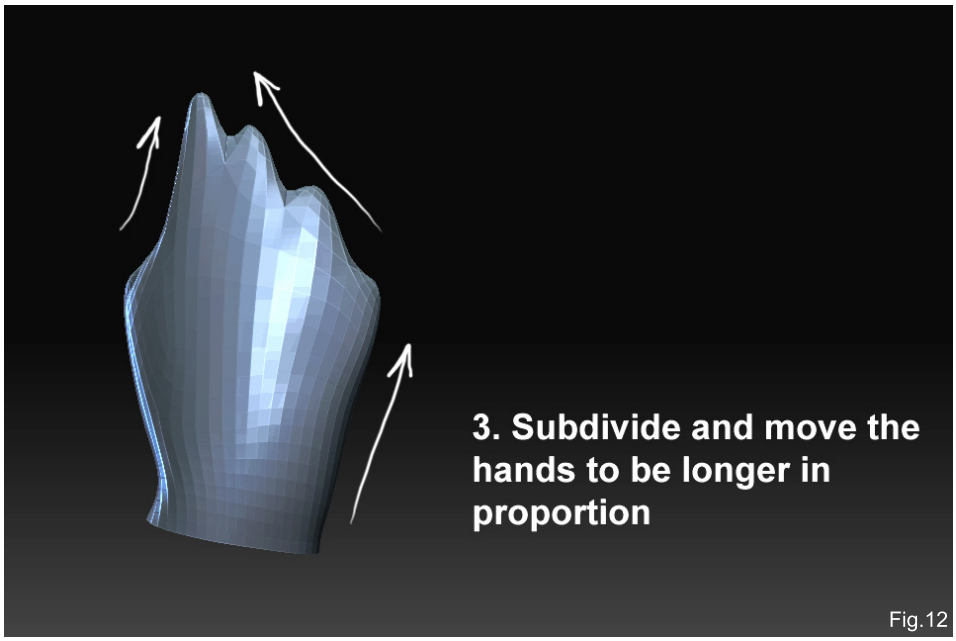


Fig.12

Downloadable Movie:

To view the second part of the sculpting progress, you can download **Movie 02** at the end of this tutorial.

Part 03

Okay, time for the webbed hands. I had to think about how I was going to do this when I first started, because I wanted to avoid having to bring the mesh over to another programme to add polygons traditionally. First of all, I use poseable symmetry for most of this. At one point, I forgot to turn it on and ended up screwing up the other hand, but that's okay, you can just fix it asymmetrically and give it a unique pose to keep it from looking the same on both sides! To get the webbed transitions between the fingers I first use the Smooth and Flatten brushes to get the finger extrusions closer to the palm (**Fig.10 – 11**). I knew I might have some hard times getting control of that much geometry smoothed down to nubs in later stages, but I was committed to using this technique at this point. I pull the mesh out to make the hands

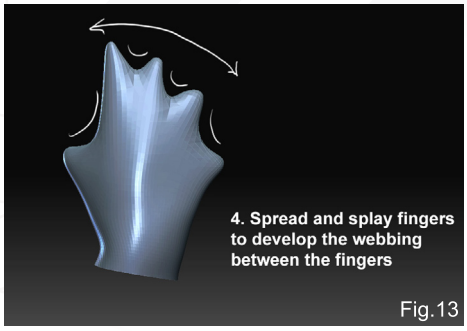


Fig.13

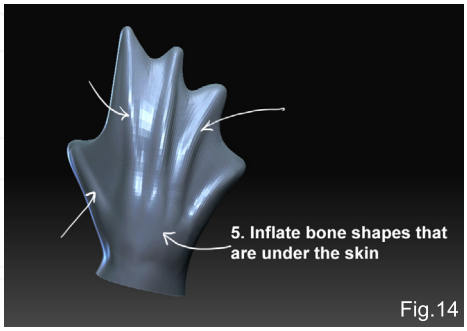


Fig.14

Fig.15

longer and more to the form of what a toad foot looks like. They have really long toes/fingers so I need to be sure I have enough room to indicate this (**Fig.1**2). Once I get the length kind of close, I then work on getting the splay and spread of the fingers more accurate by using the Move brush once again (**Fig.13**). To get the fingers in there, I inflate them out and have them meet at the palm area, which is defined using the Clay brush (**Fig.14**). I also pay attention to how thick the hands are by pinching the webs and making sure the hands are "flat" enough. And to finish them off, I go ahead and bulge in the knuckles, fingertips and web striations with the Inflate and Clay brushes (**Fig.1**5).

Downloadable Movie:

To view the third part of the sculpting progress, you can download **Movie 03** at the end of this tutorial.

Part 04

At this point, I decide I want to have a big, flappy tongue coming out of his mouth. So to do this I need to open up his mouth using a series of quick masks and the Move brush again. Probably, it would have been easier if I had planned from the beginning to do this, but sometimes in these speed sculpts you just have to work at the speed of thought, meaning, working as fast as you can whilst thinking at the same time, planning your next steps while sculpting and staying efficient (hope that makes sense!) (**Fig.16**). Okay, so for the tongue I take a cube and start to push and pull on it. Once I get the general shape, I bring it into the scene to be placed in the mouth of the amphibious man by using Transpose Master once again. Then I pinch, move and inflate it into a more recognisable tongue. At the intersection with the mouth, I go ahead and delete some faces


Fig.16

at the lowest level and spread the opening to conform to the shape of the open mouth. I quickly realised that I was going too much out of the side of the mouth and decided to adjust the tongue to come out closer to the middle of the mouth (**Fig.17**).


Fig.17

Once I am somewhat happy with the tongue shape, I move onto detailing out the body. This includes cleaning up some messy areas, adding more folds and adjusting the pose on the face. Then, for final detailing of the skin surface, I start adding warts and bumps all over the place. I do this with both the Inflate and Clay brushes along with Alpha 07 and a Drag-rect application. I adjust the Z Intensity throughout to get some different heights and only apply these bumps to spots that my reference images indicate them to be. I stay away from soft areas like the belly, underarms, face, etc. The bigger warts are added with the Inflate brush along with Alpha 01 and 12 and the Drag-dot application. Then I use a combination of Inflate and Clay brushes with no alphas to enhance all these new bumps. Once I get the bumps looking okay, I move onto adding some more wrinkles using a brush called "PinchEffect", created by Fatmir Gjevukaj. A genius brush! I use it in ZSub mode and dig in some smooth wrinkles with it. You can use the regular inflate and pinch method if you like, or even the Slash brushes, but this PinchEffect brush really saves you some steps! I try to keep the strokes light and crisscross them, mostly in joint areas like the elbows, wrists, neck and armpits. Then I go over those areas with the Inflate brush to further enhance the volume of the folds and wrinkles (**Fig.18**).


Fig.18

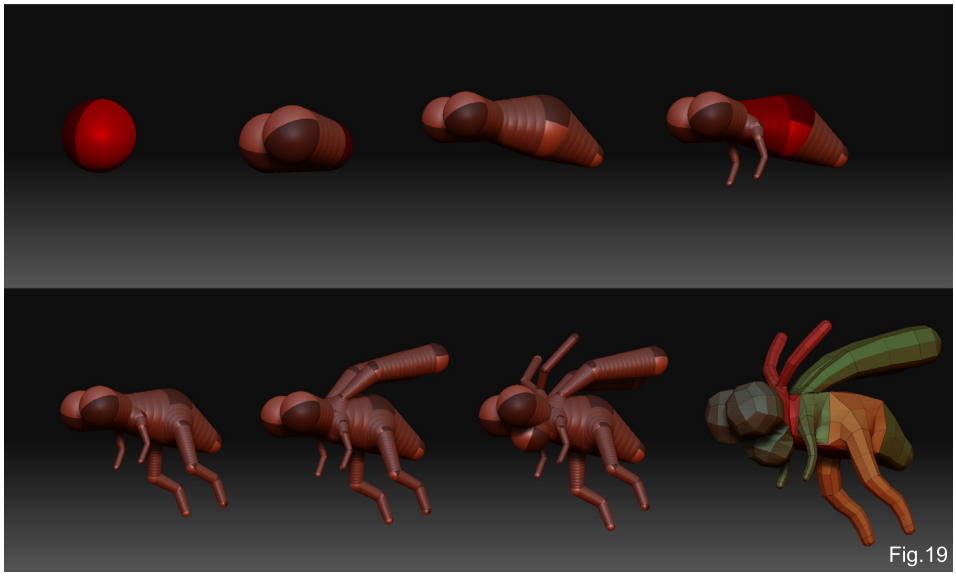


Fig.19

For the little bug that the amphibious man is trying to catch, I use ZSpheres to get him started. After putting in all the major features I want, like big eyes, legs, arms, wings, thorax and abdomen (**Fig.19**), I go ahead and start

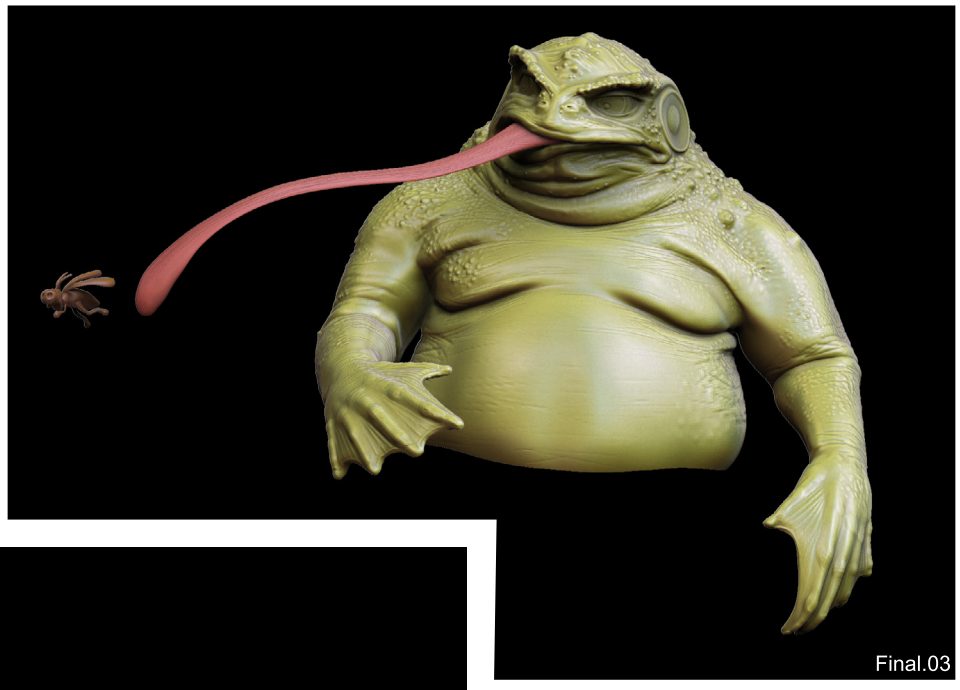
sculpting him as quickly as I can. I knew he would be small in scale compared to the amphibious man, so I wasn't too worried about a lot of the details. Plus, I want to keep the focus on the amphibious man. So I work him over with the usual Move, Cay and Inflate brushes until I'm happy with the results. I then append him in as a new Subtool and transpose him into the scene in the spot that I want him to be. Then I do a quick look over the whole model and tweak a few spots before calling this one done.

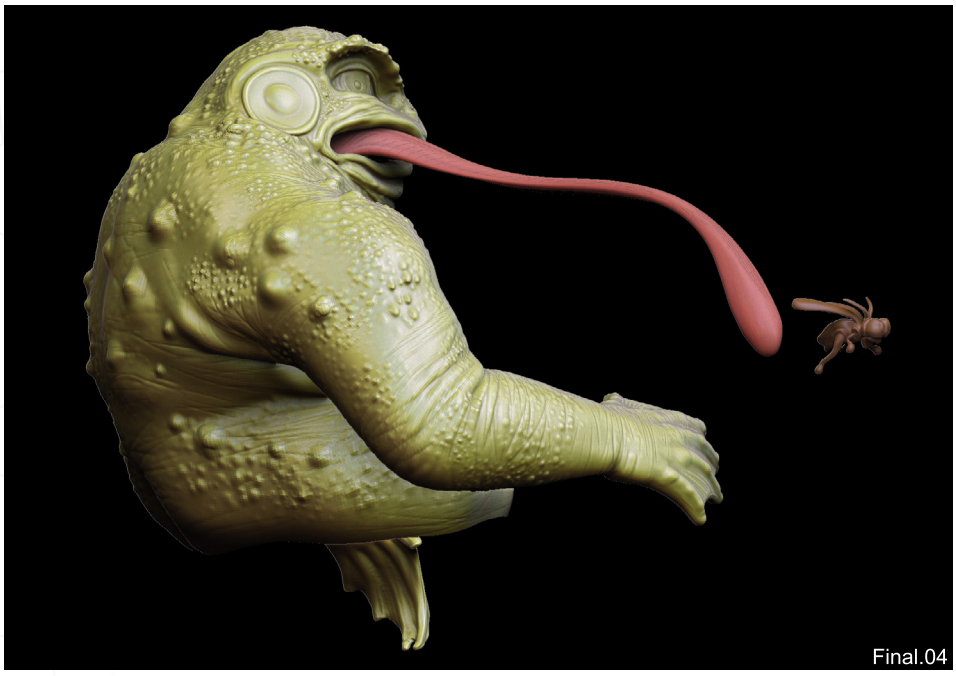
DOWNLOADABLE MOVIE:

To view the fourth part of the sculpting progress, you can download **Movie 04** at the end of this tutorial.


Final.01


Final.02


Final.03


Final.04

Here you can see some of the final turnaround shots of the finished sculpt (**Final.01 – 04**), and finally, here are the hero shots (**Final.05 – 06**).

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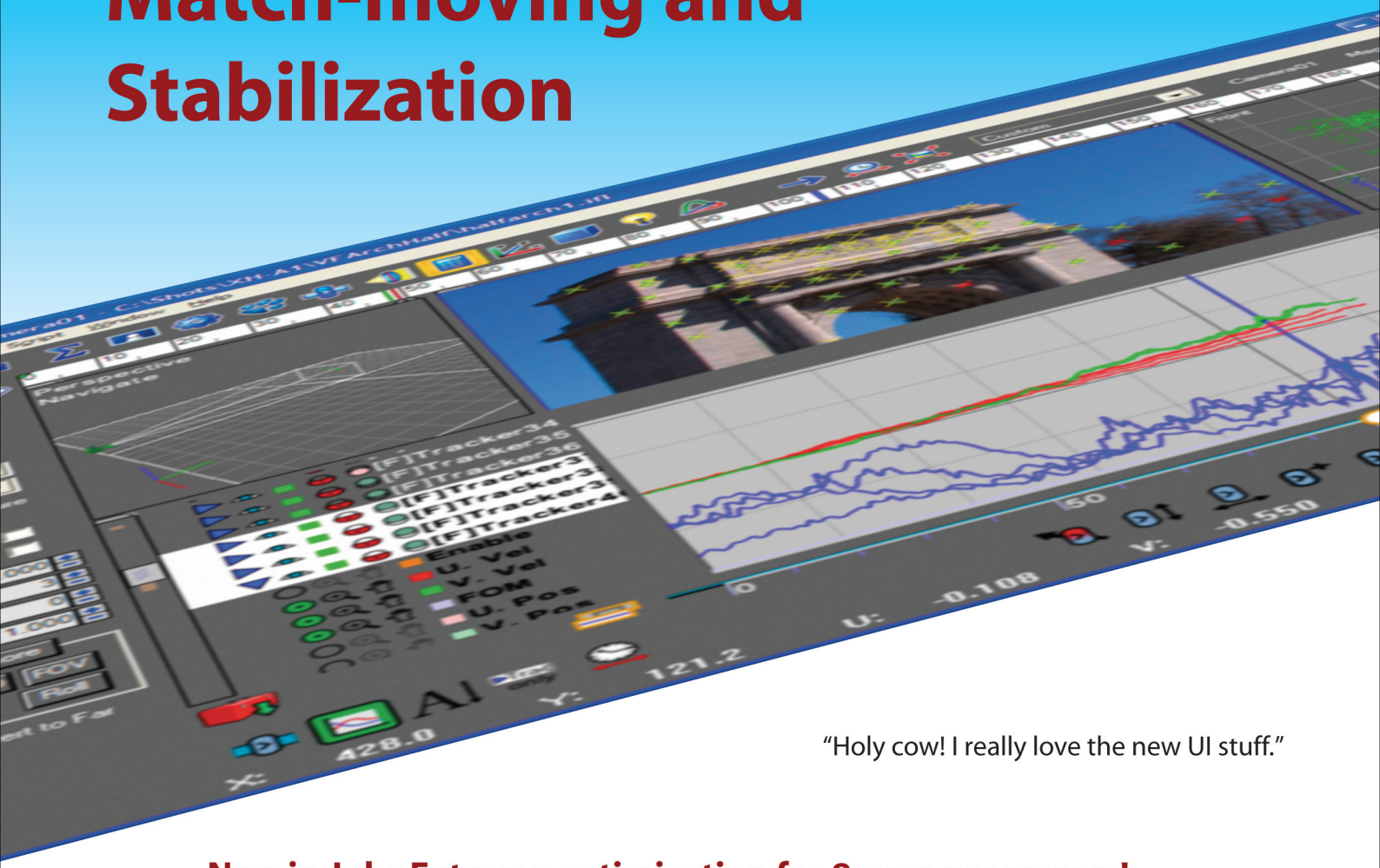

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Obese Character Creation ZBrush

September 2008
Part 1: Old / Gaunt

October 2008
Part 2: Obese

November 2008
Part 3: Steroid-Pumped Guy

December 2008
Part 4: Extreme Piercings & Tattoos

January 2009
Part 5: Beaten-Up

February 2009
Part 6: Zombie

March 2009
Part 7: Vampire

April 2009
Part 8: Werewolf

May 2009
Part 9: Frankenstein

Welcome to the new ZBrush Character Creation tutorial series. Each month, Rafael Ghencev will take us step-by-step through the transformation of a clean, generic head base mesh into a character type of 3DCreative's choice! We thought that topics such as a wrinkled, gaunt, old man, a steroid-pumped guy with popping veins, an extreme tattooed and pierced dude, and even some real extreme cases of personality disorders in the form of a vampire and a werewolf, would be fantastic for detailed sculpting work! On top of all these, Rafael thought it would be cool to sculpt and texture Frankenstein, and we agreed, so we've even thrown that one into the line- up for you as well. So stay-tuned over the next nine months to see Rafael at work and to learn a thing or two about detailed sculpting in ZBrush for characters. This second tutorial covers the development of an obese man.

Enjoy!

ZBrush Character Creation Obese

Created In:

ZBrush 3

Concept

Welcome back to the ZBrush Character Creation Tutorial Series. This month I decided to do some sketches to put my ideas down on paper and improve them. It's very quick to do some tests on paper, so I start off by drawing some variations of an obese guy and picking the best for me (**Fig.01**). In this case I've chosen an Asian obese guy. It's always good to work with references – not to copy, but to make your work more natural-looking (**Ref.01 – 05**).

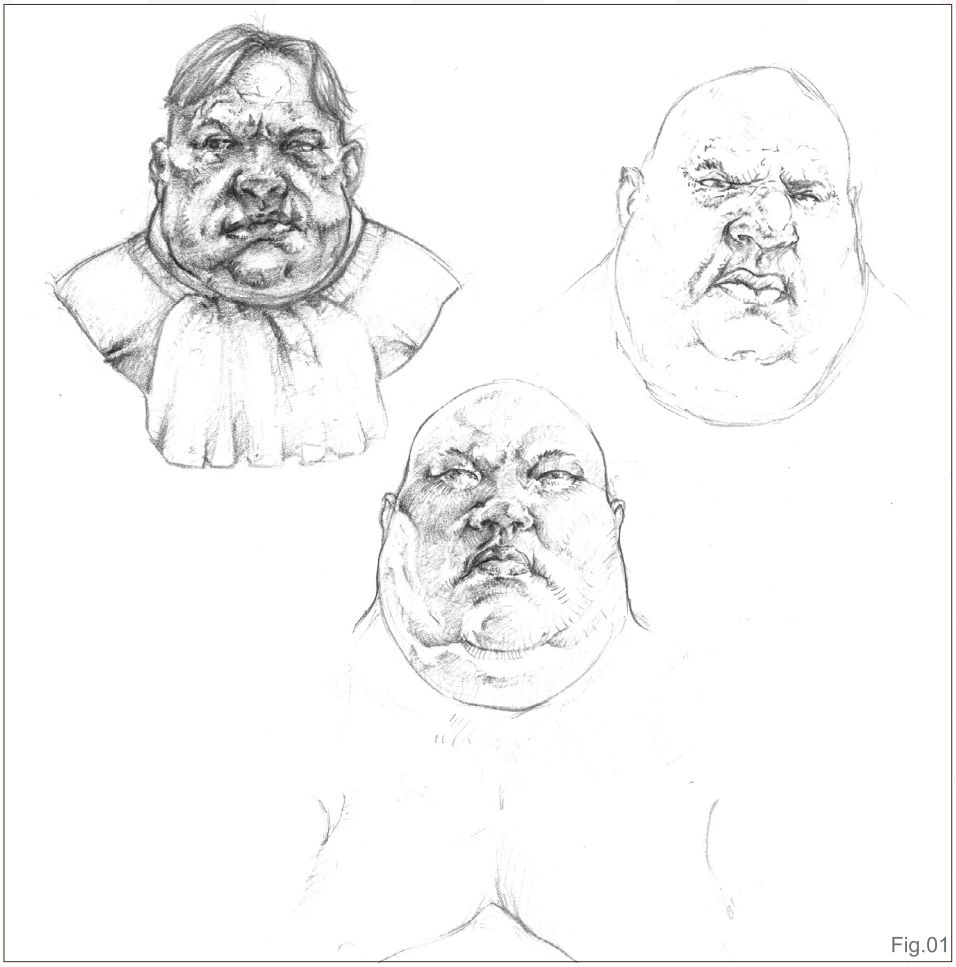


Fig.01

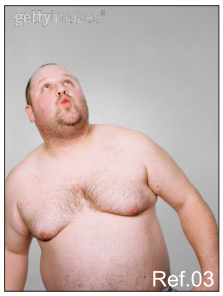
Sculpting: Finding the Shape

I begin this character with the Move brush, trying to find the best shape. But, before getting too much into the sculpting we should review some very important things first! For example, in this tutorial I'm sculpting an obese guy, so I have to put the fat in the correct places to make it look believable. It's therefore very important to study references to understand about fat placement on a face and body such as this.

Ref.05

Ref.01

Ref.02



Ref.03

Ref.04

Also, in this particular case, we've got some other considerations to take care of: the first one being that the Asian skull type is different from a Caucasian or from an African. We can note that the front of an Asian face is flatter, the cheek bones are more pronounced and the distance between the front and the back of the head is shorter (**Fig.02**).

Along with this, we can also take note of some of the areas with more fat. The upper part of the head is very similar to that of a thin/average-

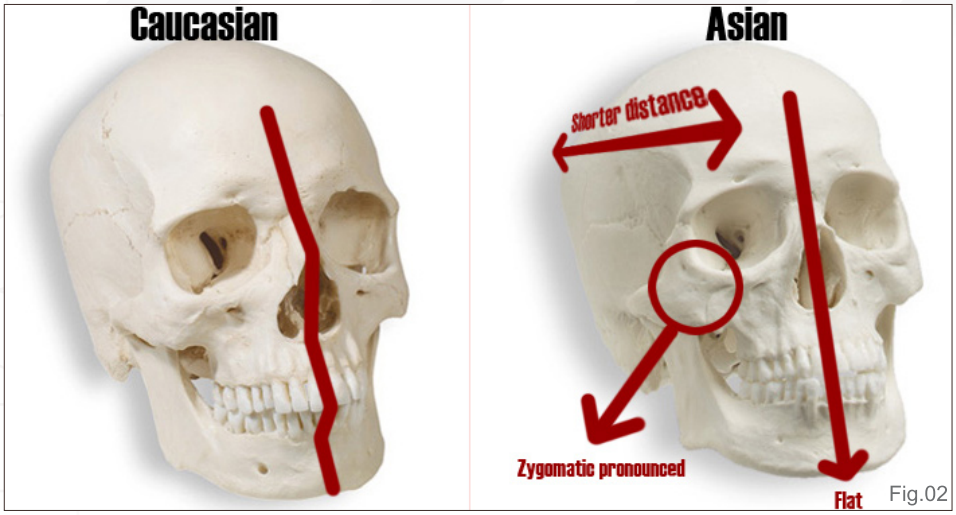


Fig.02

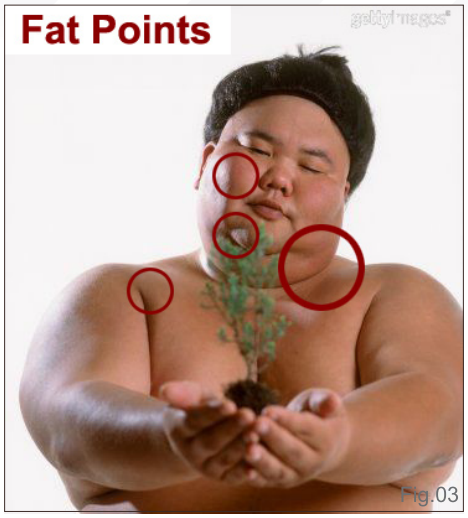


Fig.03

sized person, except for the nape area where the fat usually stays between the end of the skull and the beginning of the spine. Fat can also be located under the low jaw (**Fig.03**).

These are the main considerations, and with these all in mind we can look for a better shape for the character without worrying about the details. And always remember to work the biggest shapes on a low resolution – subdivision level – and add more subdivisions when the smaller details are needed (**Fig.04**).

After finding the largest shapes first, I then add a new level of subdivision and start to block in some more specific areas, like the nose, mouth and areas of fat. At this stage I'm using the Move brush and the Clay brush, both with low values of around 20 (**Fig.05**).

Sculpting: Refining Individual Shapes – Mouth, Eyes, Nose Ears & Areas of Fat

With a good overall shape established, I can then start to refine the model with the Clay brush (or the Clay Tubes brush) to add more volume. The Standard brush can also be used to refine these volumes and to create some cavities. At this stage, I also start to add some nuances and start to block in areas of fat all over the character (**Fig.06**).

Note: When adding fat to your character, keep in mind that in the contact points the fat seems to be inflated. This happens because of the pressure it creates with the part it's in contact with. This pressure generates some volume displacement in these regions. This can be clearly seen between the fat under the cheek and the chest.

I continue to work individually on some areas, like the mouth, eyes and nose, to make it look closer to the references – or in this case, my initial sketch. At this stage I'm still using the Clay and Standard brushes and Alpha 39 to work on smaller areas, such as the brown cavities and regions with smaller details, and make

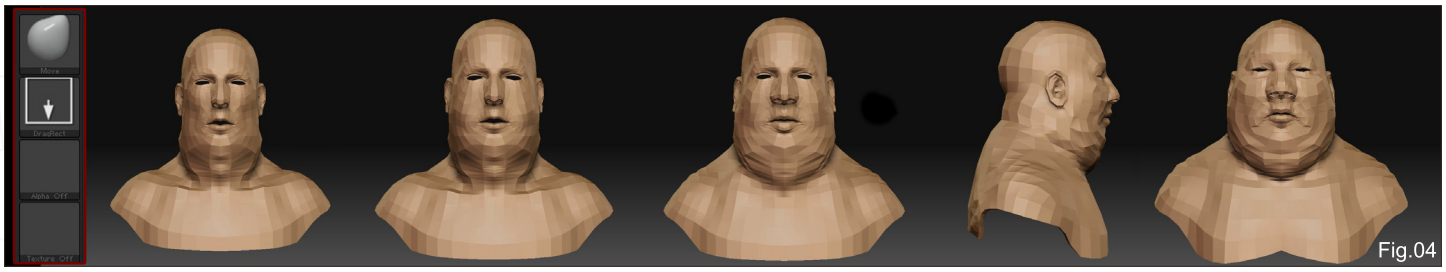


Fig.04


Fig.05

Fig.06

finer refinements. Always keep in mind that you should have references to look at whilst sculpting, to give a more natural look to your character (**Fig.07**).

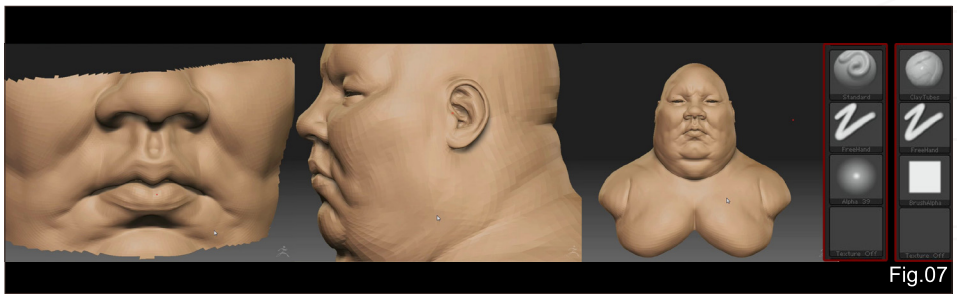


Fig.07

Sculpting: Details & Final Adjustments

With all the shapes done we can start to work on the small details, like wrinkles and skin imperfections. I choose to work without specific alphas on this character. First I select the Clay brush with a small radius. With this brush I add small volumes to create the skin imperfections – one by one. This is a lot of work, but the final result is great! An interesting tip is to pick the Standard brush and lower the Mouse AVG to 1 (on the Strokes > Dots palette). The Mouse AVG option gives more continuity to the stroke, with no dots in it. Also choose a rounded alpha (like 44 or 45) and lower the brush radius. When creating fast strokes it's going to make some small dots – very useful for pores (**Fig.08**)!

To create smaller wrinkles I select the Standard brush, change the stroke option to Freehand and set the Mouse AVG to a higher level (like 4), and use the Alpha 38 (**Fig.09**).

Coming towards the end of the modelling process now, I work a little more on the fat regions, especially on the fat on the back of the neck – I will later select the head and make it smaller. To do this, I select the Scale mode and create a selection along the topology by pressing the Ctrl button and scaling it down. I then make the last corrections on the chest, shoulders, chin and neck to make it more natural-looking. To do this I use the Clay brush

Fig.08


Fig.09

Fig.10


Fig.11a

for volume adjustment, the Standard brush for cavities and for the borders I use the Inflate brush (**Fig.10**).

And here the sculpting process is complete (**Fig.11a – b**).

Texturing

After the modelling part I can start the texturing. With this character I am opting to use Poly Paint, which is nothing more than applying colour on the polygons. Go to Tool > Texture and activate the Colourise option. Then disable the Zadd option on the tools bar. With this done, I'm ready to paint colour information over the model.

I change the material to a white one so that I can see the colours without the interference of the material colour. I then choose a medium skin tone and on the colour palette I press the Fill Object button, which fills the object with the selected colour. I then change the stroke type to Colour Spray, select Alpha 44 and start to create some colour variation over the model, trying to find a good skin tone (**Fig.12**).

Fig.11b

Back to the freehand stroke now and Alpha 01, I start to paint the lips (**Fig.13**).

Once again, I change the Alpha to 38 and start to paint with the cavity option enabled on the Brush palette. When set to 0 it doesn't affect the brush, but when set to 100 it's going to paint only the higher values of the mesh; with the value set to -100 it'll paint only the cavity area of the mesh. I use this option to paint darker areas among fat areas and between wrinkles (**Fig.14**). On the Stroke palette I select the Drag Rect option and with Alpha 06 I start to add some spots over the character, making it more realistic and more natural (**Fig.15**).

For the eyes I use some photos found from an Internet search. I take them into Photoshop

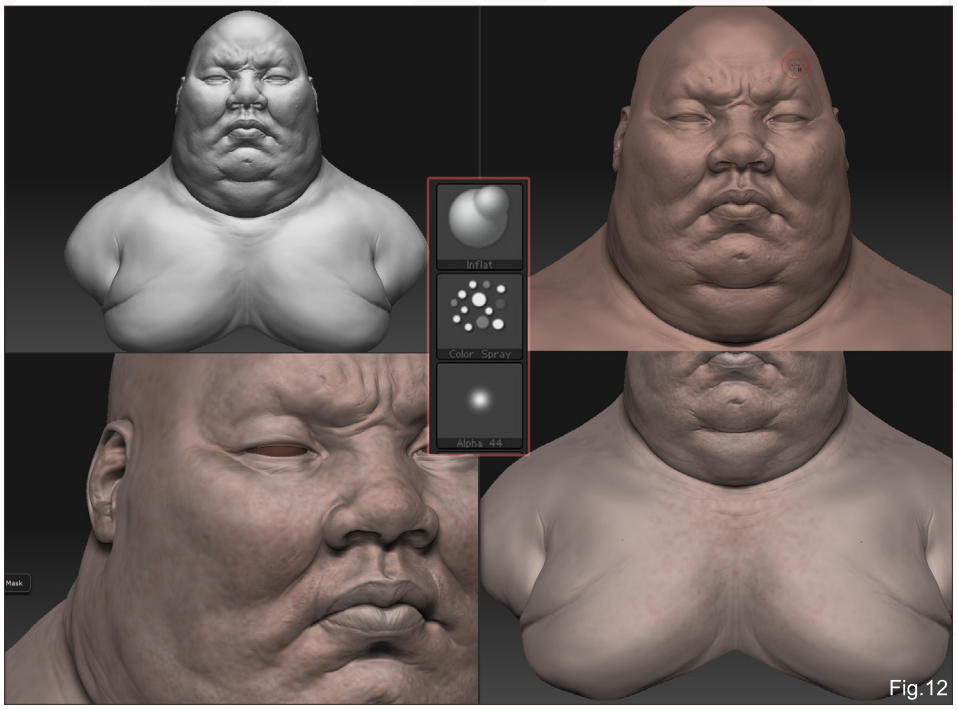


Fig.12


Fig.13

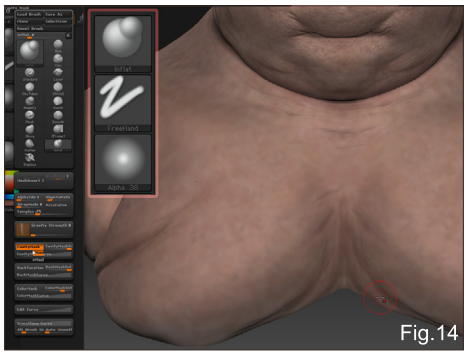


Fig.14


Fig.15

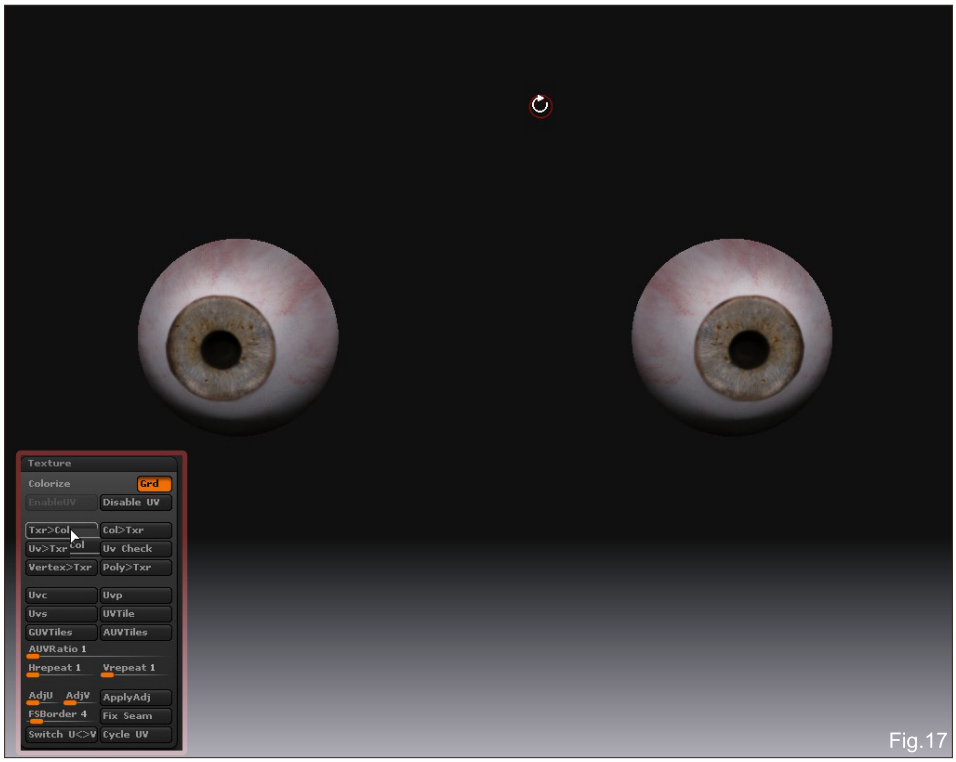


Fig.17

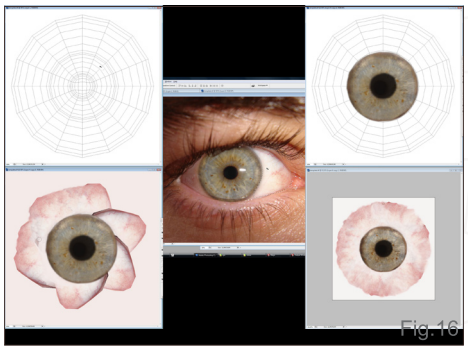


Fig.16

and plug in my UV template. I paint out the reflections with the Clone tool in PS because the reflections will be added later on in the final render. I also use the Clone brush to complete the white part of the eye – it's a very simple texture (**Fig.16**)!

I then import the eye texture into ZBrush. I add some subdivisions onto the eye tool and transfer the colour texture information to the

polygons (Poly Paint). This is needed because ZBrush doesn't work with multiple texture maps (**Fig.17**).

After finishing the texture, I select the eye and apply the toy shader to it; for the head I apply a skin shader made by Sebastian Legrain (http://sebleg.free.fr/).

For the light I just change some attributes: I change the light intensity to 1, the ambient to 0 (overall lightness), the shadow intensity to 354 (for a strong shadow), the rays to 186 (for better quality shadows), and the aperture to 80 (to concentrate the shadows) (**Fig.18**).

And finally, here is the final render made in ZBrush (**Fig.19a – b**).

Fig.18


Fig.19a

I hope you have enjoyed this second tutorial of the series. Next month I'll be describing the creation of a "Steroid-Pumped Guy". See you next month!

Note from the Editor: Rafael Ghencev has kindly provided us this time with movie footage detailing the creation of this Obese character to accompany Part 2 of our Character Creation Tutorial Series for 3DCreative, all of which are available to download here now! Simply click on the "Free Movies" download logo and you're away!

Rafael Ghencev

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Fig.19b

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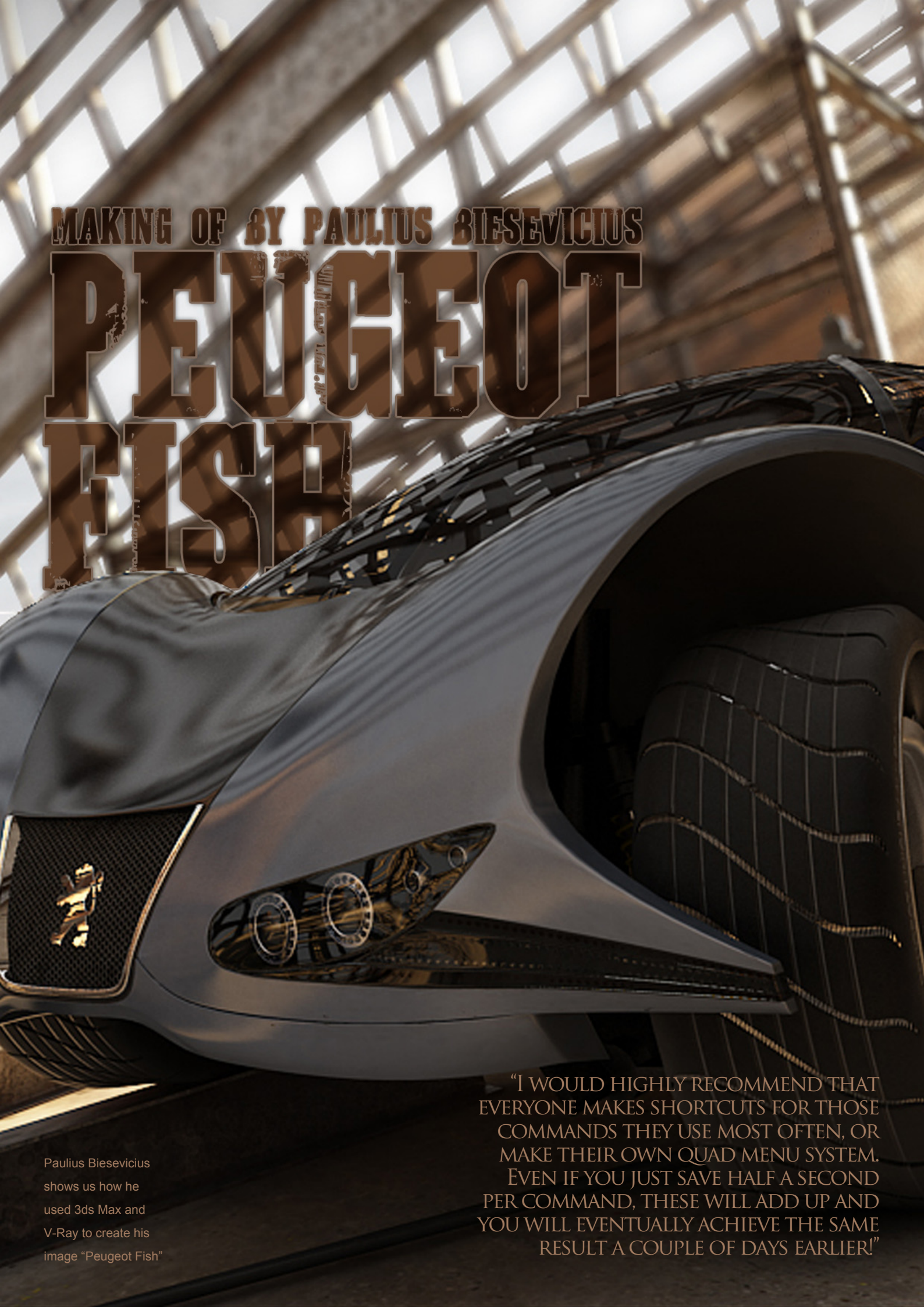

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Introduction

One day in the office I was drawing an unusual car. My colleague came to me and asked me about the image and how I was going to use it. I said that it was just for fun, but he then informed me about the 5th Peugeot Design Contest that had already started, and said that my rough sketch – with slight modifications – would probably fit in! I carefully read the theme and rules of the contest, and was thinking I would be able to finish it on time. With my colleague's support I started refining a new look for my car, collecting additional information and getting prepared for the project.

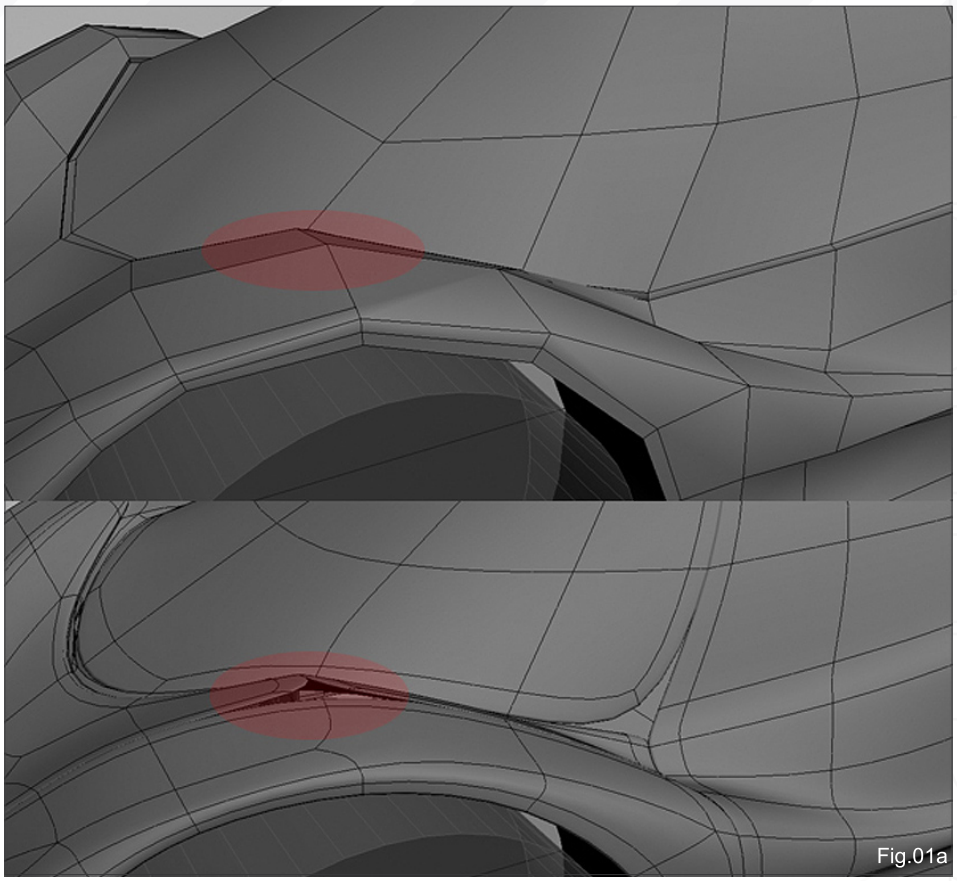

Fig.01a

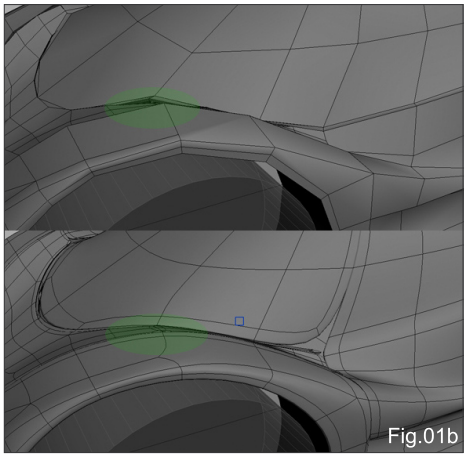

Fig.01b

I used 3ds Max, V-Ray and Photoshop software in this project.

Before You Start 3D

The theme of the 5th Peugeot Design Contest was to "Create a Concept Car which is designed to evolve within the cities of the future, whilst retaining the key values of the 21st century. The projects should bear Peugeot's stylistic codes and must contain the following four aspects included in this design competition: environmental awareness, social harmony, interactive mobility and economic efficiency."

The first visions that came to my mind were ideas of future roads possibly becoming very fast because of the constantly growing cities and a need for intensive communication. The car therefore needed to be fast, flexible, safe, mobile… and so these overall properties would, of course, make a big influence on its external look.

The main shape was started from a simple drop-like shape on wheels; a drop is probably the best shape that refines aerodynamics, and if we are making a fast car then we can't forget about that! I later made the wheels bigger, keeping in mind that the car had to be used for mobility purposes, and then drew some refining curves, adapting everything into one body and adding some detail. And that was the car's initial concept design – other detail was later added in the modelling process.

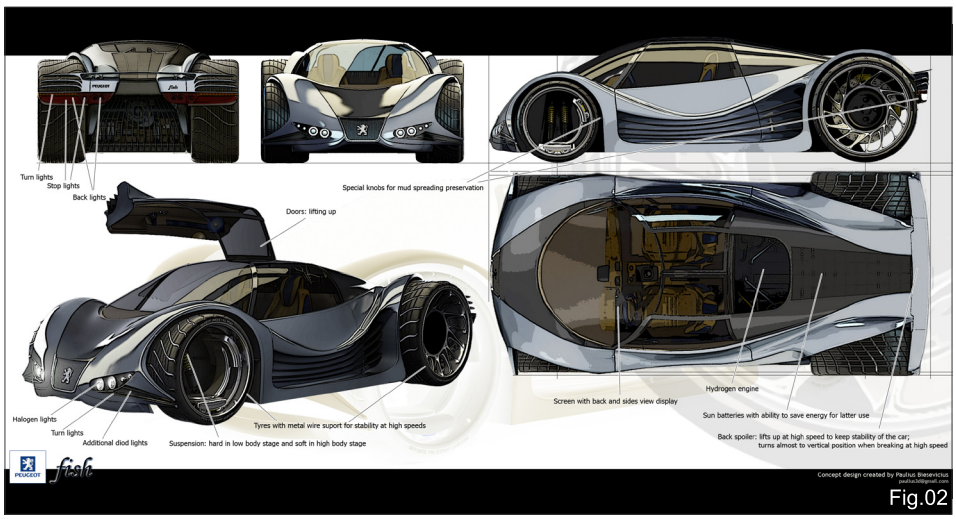

Fig.02

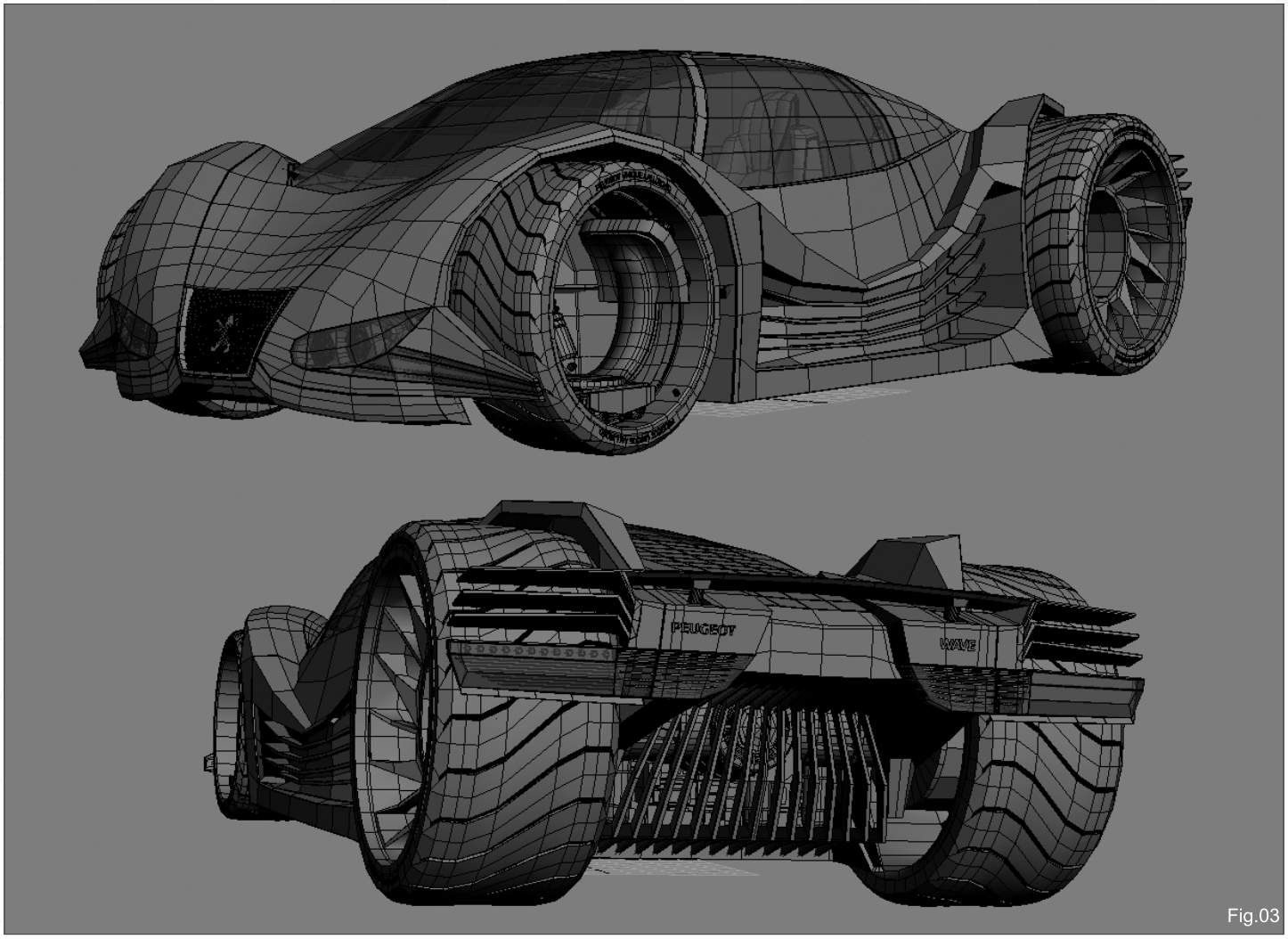

Fig.03

It wasn't easy to combine all aspects into one car, because such things as environmental awareness and economic efficiency do not come along with high speed! Anyway, I found some acceptable solutions, such as sun batteries, aerodynamics and a hydro engine.

As everybody already knows, it's very good to have as much reference material as possible when you start a project. I had about 250 pictures of other concept cars, also including rear views, interior designs and so on. Time after time I showed my work to other people and considered any potential problems with the design.

Modelling & Rigging

In case I need to make lots of modifications in the modelling process, I always try to make my initial object as simple as possible. This way I can simply move any parts around, adding details and remove any unnecessary parts if I need to. Only when I am happy with a shape do I start detailing my models.

All of the modelling for this project was done using standard modelling techniques; I also used the PolyBoost plug-in and some of my own written plug-ins. I would highly recommend that everyone makes shortcuts for those commands they use most often, or make their own quad menu system. Even if you just save half a second per command, these will add up and you will eventually achieve the same result a couple of days earlier!

One uncommon problem was breaking curved surfaces. I used few polygons and Mesh Smooth to make the curved surface, but when detaching parts and adding additional detail I was getting corners in those places. My solution was to copy the surface that I wanted to detail, add a Mesh Smooth modifier with 1 interaction, and collapse everything into Editable Poly. I then combined the "Mesh Smoothed" geometry part with the original part, leaving detail only where it was needed. After all that, I ended up with a pretty smooth surface (**Fig.01a & b**).

During the modelling process I was also solving all logical problems that may have looked strange and/or unbelievable. For example, I put a 3D man inside the car and checked if there was enough space for his legs. Another thing was the air passing through the car. It starts by entering the grid at the front, and then the cooling radiator is located behind the front hood. After the air passes through the side arcs it's being cooled again, and with additional air it refrigerates the main engine (**Fig.02**).

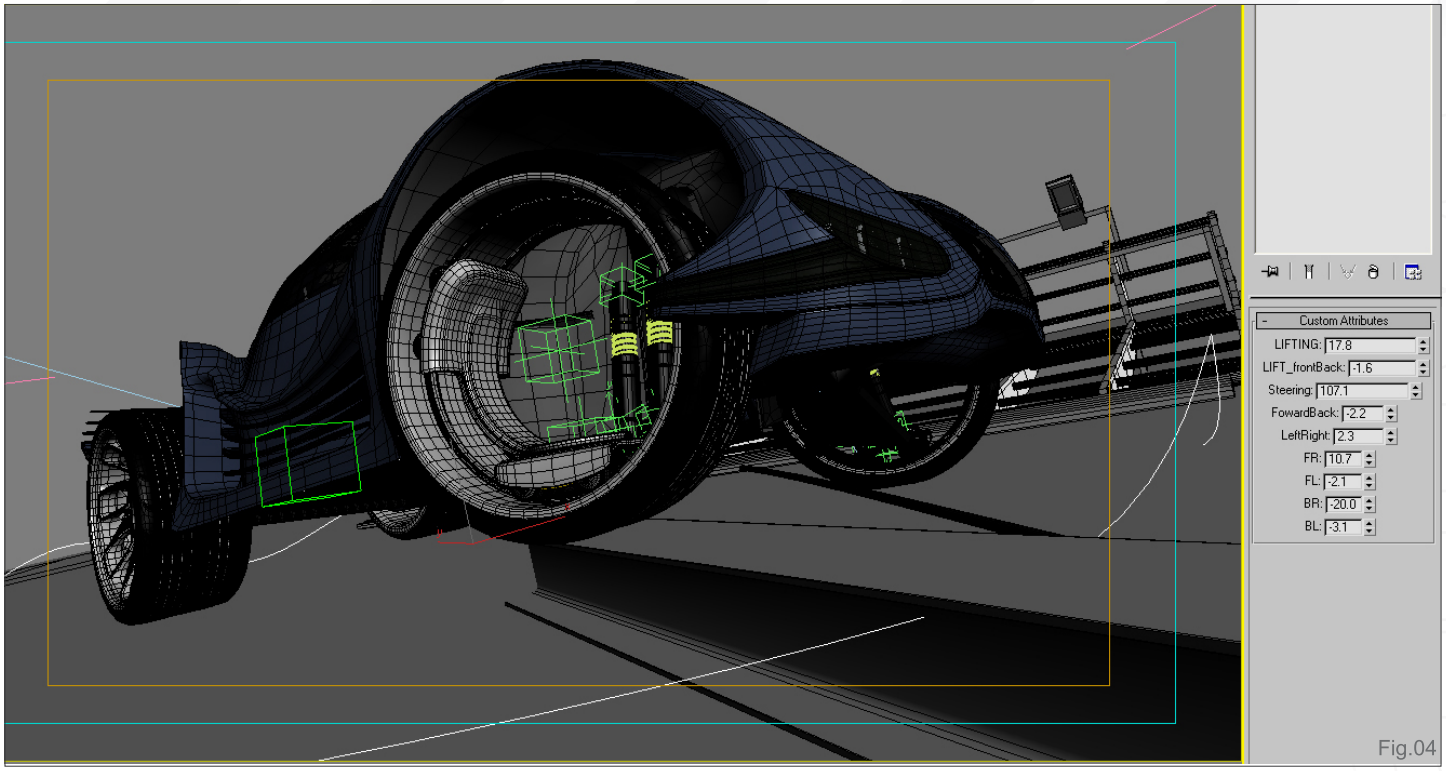

Fig.04

With the modelling part done (**Fig.03**), I started making the rig. The reason why I did that was so that I could show the car's mobility abilities, and also use the rig in an animation later on.

My rig consisted of lifting, steering, moving forwards/backwards, rotating left/right, rotating front/back, and suspension for each wheel. I later also added a couple of additional controls to open the doors, and a back spoiler. And that was pretty much enough for everything that my car was going to do (**Fig.04**).

What about an animation…? Well, I didn't make that in the end, because my animation rendering times were way too high according to the deadline!

Materials, Lightning & Rendering

Almost all the materials used in the car's shading were procedural. I used maps only for the interior cloth and leather. In my opinion, there was no need to un-wrap the model and add some kind of dirt near the wheels or anything like that. I thought that the best presentation for my concept car would be in a clean studio render with clean reflections, where you can see the shape of the car without concerning yourself too much with reality.

The lighting consisted of one key Spot light, two side VRay lights and four big Reflection lights that didn't light the scene. I also used a chrome HDRI map in the environment slot. For rendering, as you will have already noticed, I used the V-Ray rendering engine, and in **Fig.05** you can see my lighting setup for the render from the back. Here I have also outlined the rendering parameters that I paid most attention to before rendering.

These were the additional rendered elements:

Matte Shadow – to adjust the intensity and colour of the shadow;

Self illumination – to add a glow to the lights later on in the post-production stage;

Specular – to adjust the intensity of shine, or to add some glow to shiny areas;

ZDepth – to add depth to the image;

RenderID – to select and adjust separate parts of image in, let's say, Photoshop

So I took my images into Photoshop, made some colour correction, a few changes, and here is one of my final images (**Fig.06a & b**).

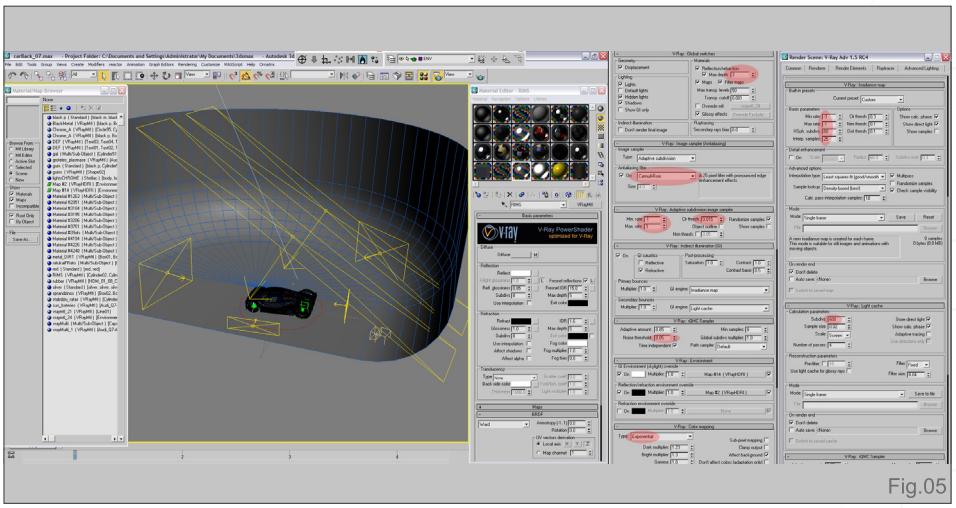
Fig.05

Here is another render (**Fig.07**) in which I used only one Key light – no Reflection planes. The HDRI represents the photo into which I wanted to compose my render. I also modelled the rough environment geometry, which can be seen in the reflections, but rendered them as matte.

And the final one (**Fig.08**) was placed in a 3D environment that my friend gave to me. It was already textured and I only made some modifications to the geometry, changed the lighting and adjusted a couple of the environment textures.

Thanks for your attention and I hope you have enjoyed reading this article. If you have any questions, please feel free to contact me.

PAULIUS BIESEVICIUS

For more from this artist visit:
http://www.paulius3d.com
Or contact:
paulius3d@gmail.com

Fig.06a

Fig.06b

Fig.07

PEUGEOT

fish

Concept design created by Paulius Biesevicius

paulius3d@gmail.com

DRINKS GIRL

MAKING OF BY RODRIGO BANZATO

Rodrigo Banzato shows us how three of his old models have been brought back to life in his creation of “Drinks Girl”

“IT’S COOL TO SEE WHAT WE CAN DO WITH SOME OF OUR OLD 3D MODELS. DON’T LET THEM DIE ON YOUR HARD DISK - GET THEM OUT AND REINVENT THEM!”

MAKING OF DRINKS GIRL

Created In:

3ds Max, Mental Ray, Photoshop

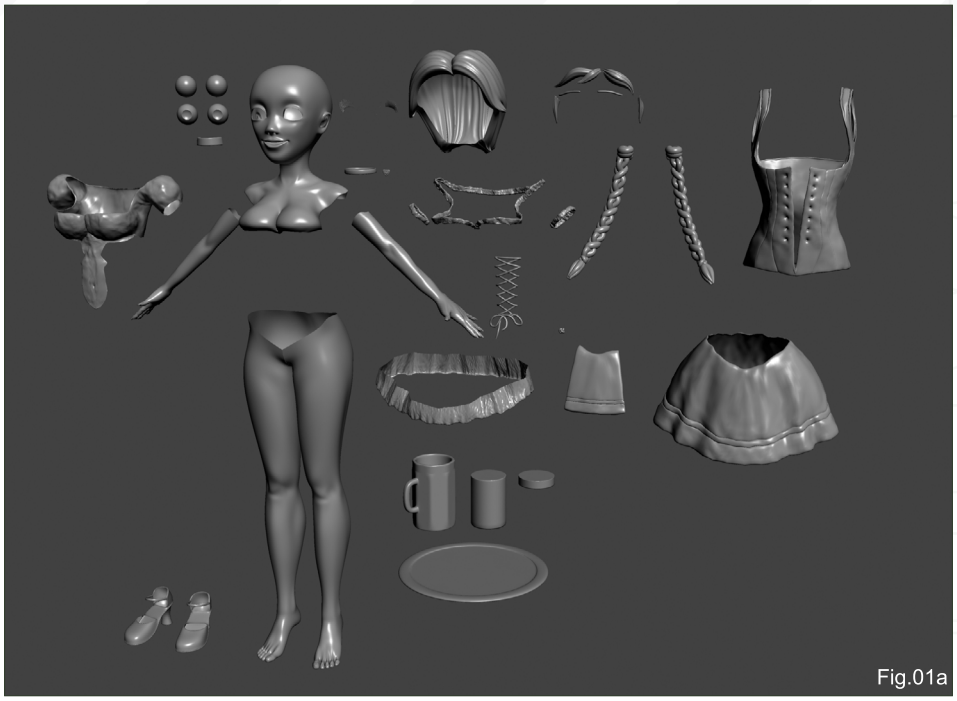
Fig.01a

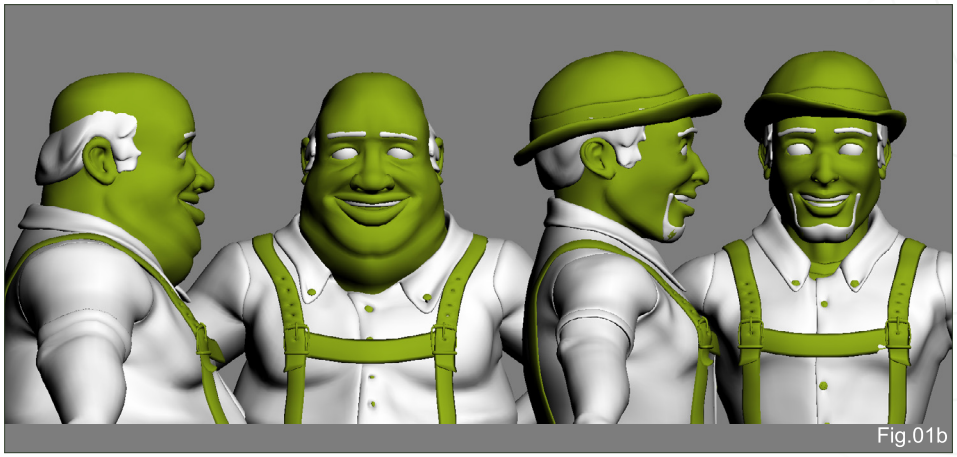
Fig.01b

I created this image to showcase three old models that I made when I was working for Gameloft. I really don't like the idea of having unfinished models on my hard disk, and cartoon models aren't my favourite, but I actually really enjoyed creating this image. I used a lot of references, and one of my favourite places to search for inspiration and references is the 3DTotal Galleries.

I used 3ds Max to create the models, as you can see, and I made all the parts separately so I could easily change the style of any of the accessories (**Fig.01a**). Each modelled part was also given its own link or skin modifier. For the guys it was the same thing, but the clothing and bodies were the same mesh (**Fig.01b**). I used mesh from the younger guy to create the larger man; soft selection from 3ds Max helped a lot with this.

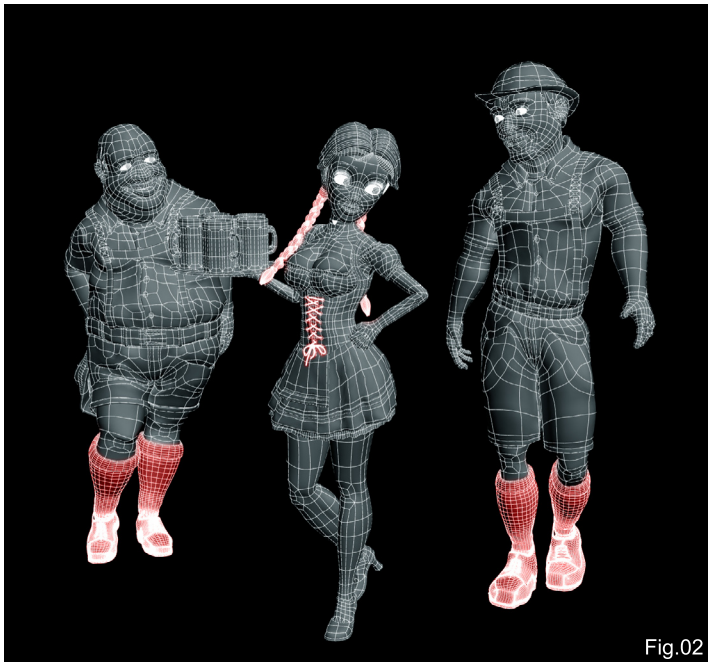
Fig.02

This work was done for a still image, but if I had done an animation then I would probably have had to fix those areas shown in red in the wire frame (**Fig.02**). For example, the splines of the hair could have been converted to low poly models, and the same spline could have then been used as a bone for the hair. I used an FFD modifier in Max to correct some proportions of the shoes, so I collapsed and attached them to use the skin modifier. When I think in terms of animation, I create the things to be animated. It would of course be very interesting to animate this scene, but with this piece I was much more heavily focused on the modelling and texturing of the characters.

Here you can see the major materials I used for the girl (**Fig.03**). It was also important to balance the materials with the scene lights. I always like


Fig.03

to have at least four lights in a scene: one back light to produce the strong contour, helping the sub surface material to work; a left and a right light with different temperatures; and a main light to produce shadows and highlight areas.

Another very important thing was to correct the lights with a grey material, applied to all scene objects (**Fig.04**). In this case, you can see that the light is good in both its intensity and colour. I always keep in mind that I must see where the lights come from and where the main shadows are in order to maintain great volume in the scene.

I used Mental Ray to render so that I could have the Global Illumination from a sky light, and so I could also have an occlusion pass for the post effects. In 3ds Max simply go into the material override, put a mental ray material with an occlusion in the surface, and you can have your occlusion image! Basically, I used Mental Ray so that I could have the Global Illumination from a sky light and have the occlusion image for the post effects. You can see from **Fig.05** how you can achieve the occlusion image; firstly delete all lights from your scene and then follow the steps shown in the image. It's very easy to do and you will achieve great volume in your scene.

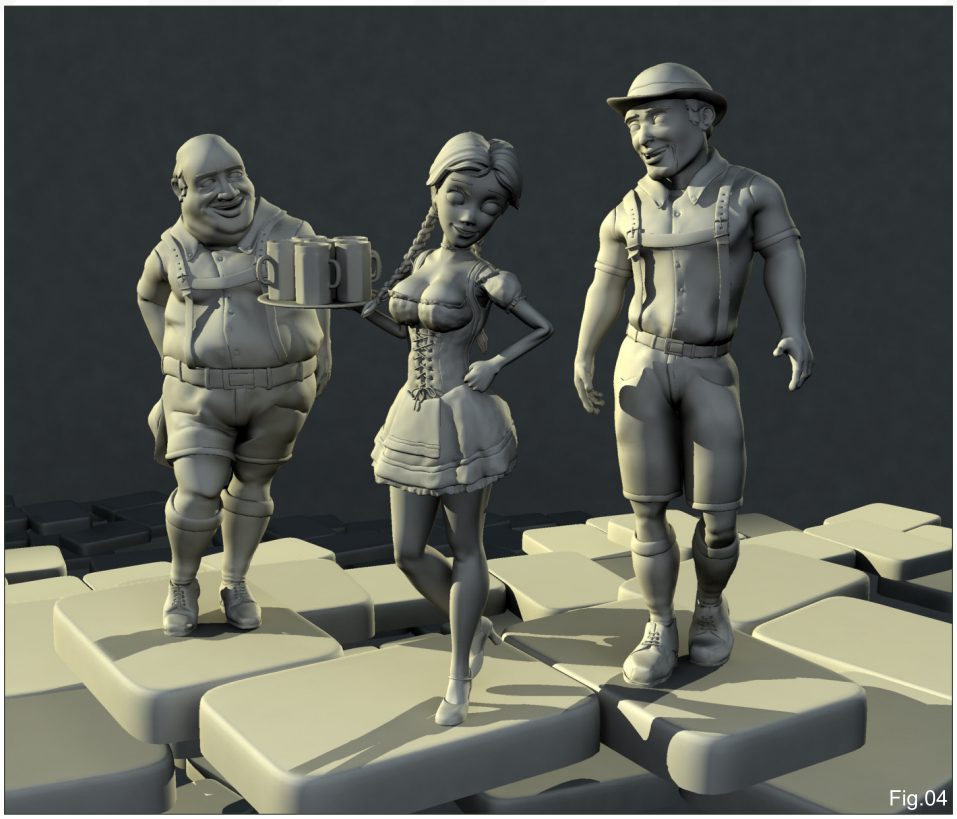
Fig.04

Take a look at how I adjusted this occlusion pass in Photoshop (**Fig.06**). The final image will have this as a Multiply layer on top.

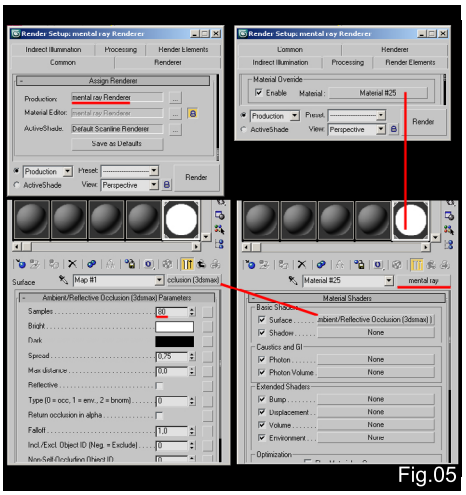
Fig.05

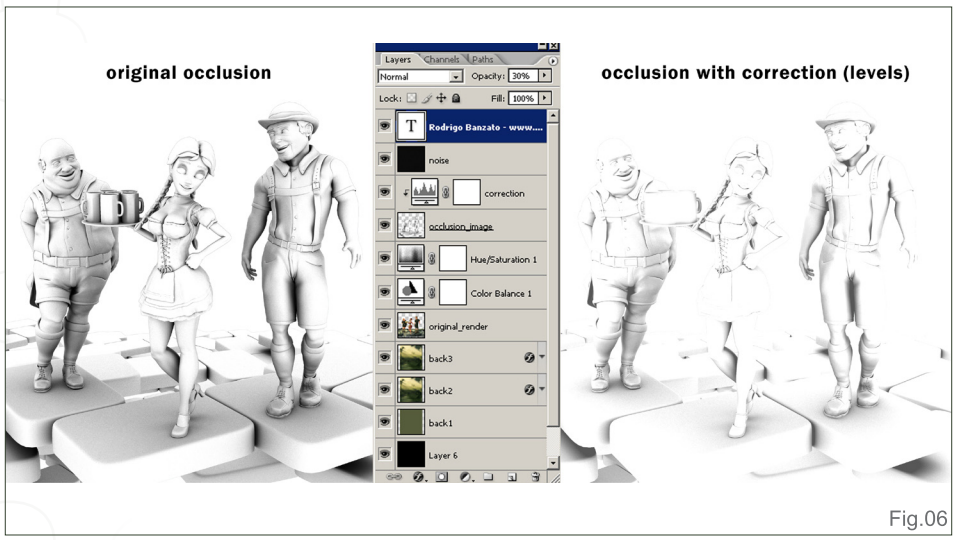

Fig.06

After compositing the layers, you can desaturate the whole image and increase the contrast in Photoshop in order to see where the important areas are and how the contrast is balanced in the image. Take a look at **Fig.07** to see the balance between light and dark areas in this image.

The floor and background are very important for characters, and I always try to put characters in a cool environment. In this example you can see that I used lots of boxes with a metal (lume) in the diffuse colour slot (**Fig.08**). Some boxes

are clearer than others in order to give more contrast and balance. I used a plane in the background with a texture to be reflected on the boxes; this texture was the same that I put in the final image.

For this piece I actually used a background from another artwork that I created, but it could have quite simply been a photograph (**Fig.09**). The coolest thing about it, I think, is that blur which helps to bring the characters in the foreground out even more.

The choice of the colour I used in this work was primarily to enhance the look of the girl. As you

Fig.07

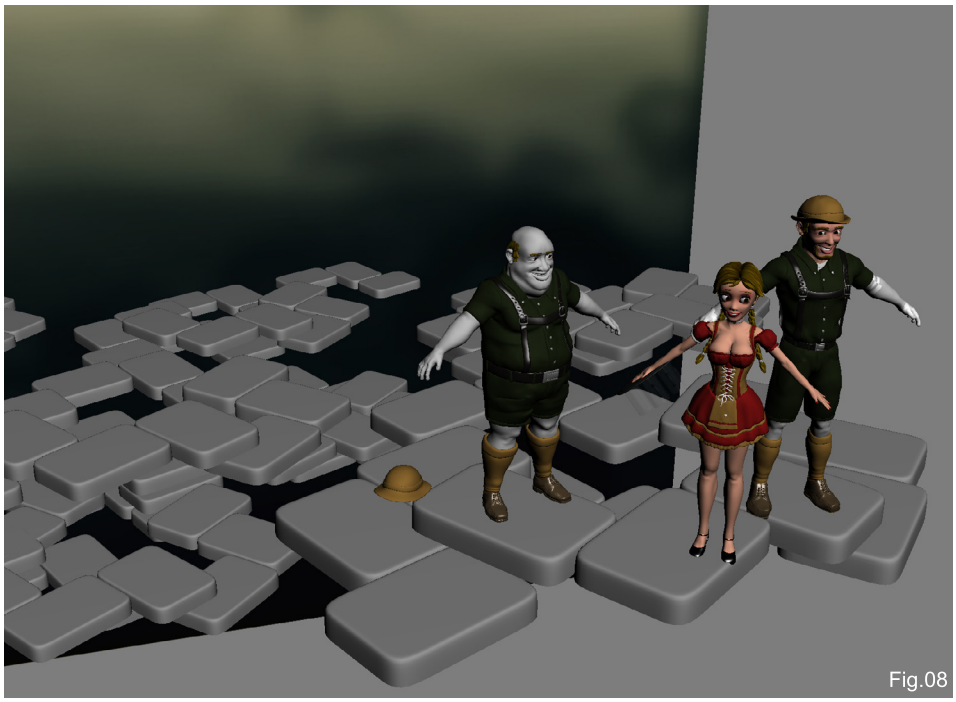

Fig.08

can see, the two boys are looking at her, so she is the centre of the image – as is the red colour which is different to all the other colours used in the image. I desaturated the image a little in order to achieve a more realistic look, keeping the main colours of the scene: green and red.

And finally, here you can see the difference between the original and render and final image

Fig.09

with a background (**Fig.10**). It's cool to see what we can do with some of our old 3D models. Don't let them die on your hard disk – get them out and reinvent them!

RODRIGO BANZATO

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Or contact:

rodrigobanzato@hotmail.com

Fig.10

next

3DC

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Aaron Sims
Little Red Robot

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Unexpected - Snickers: Rugby & Tag
Mercenaries 2 "Ca$h" - Directed by Shilo

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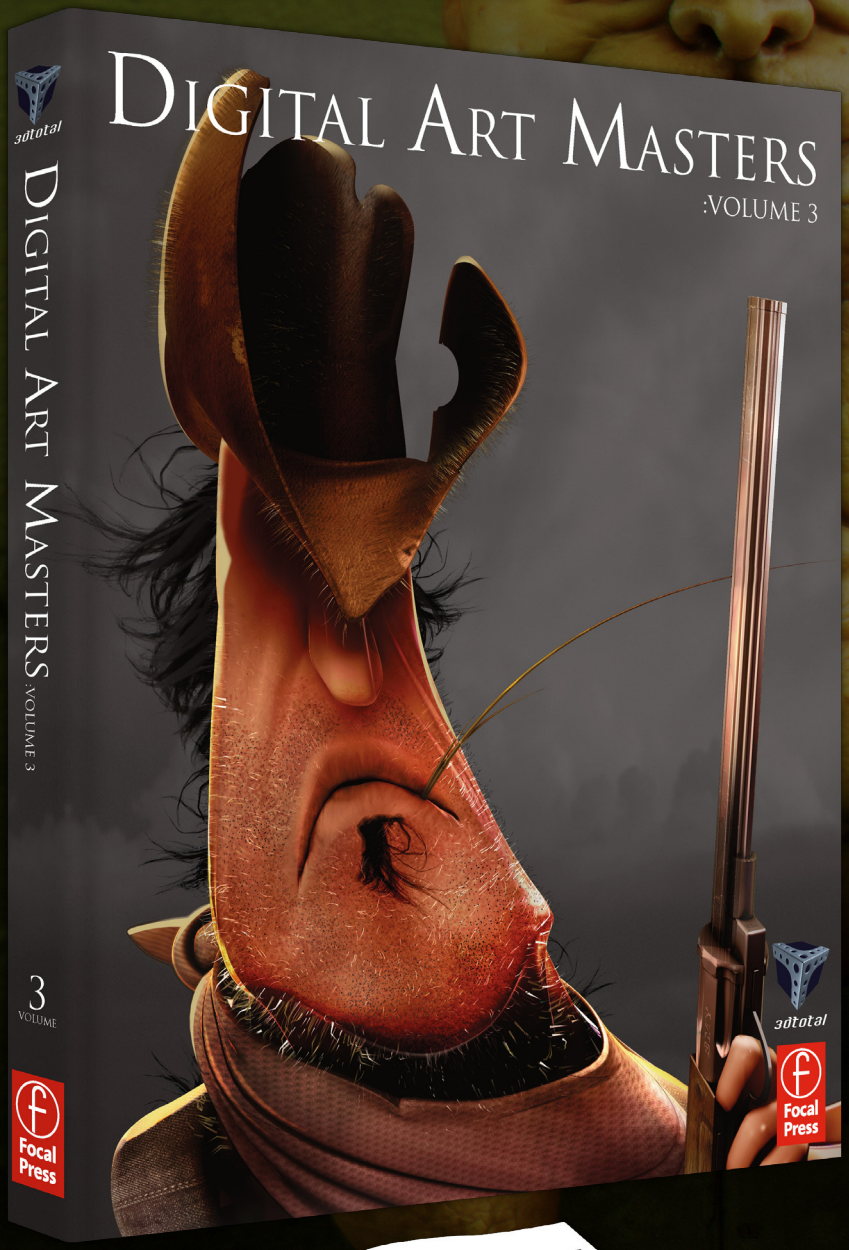
Volume 3



With the release of 3DTotal's new book, *Digital Art Masters: Volume 3*, we have some exclusive chapters for you...

This book is more than just an artwork book. Not only does it feature full-colour, full-page images, but each artist has given a detailed description, in their own words, of the creation process behind each piece of published artwork. And they've done it especially for this book!

This month we feature:

"The Gnome"
by Damien Canderlé

The following shots of the “The Gnome” book pages are featured here in full-resolution and can be read by zooming in...

The Gnome

By Damien Canderlé

Concept

For this illustration, I didn't start from a concept or an original idea. In fact, this character came to life by chance, rather than from a well-planned project. It was first shaped when I was beta-testing ZBrush 3. In order to test the new possibilities of the software, I started sculpting from a sphere and, after adding more and more details, I ended up with the gnome's face (**Fig.01–02**). My goal was only to test ZBrush but, seeing how the model turned out, I decided not to stop with just a head... I just had to make a complete character with a full body and then bring it to life with a nice lighting set up!

Fig.01

Fig.02

Modeling

The techniques used to model the head were rather simple and very close to traditional sculpting. The idea was to start with very basic shapes to block out the proportions and shape of the face. I didn't think about details such as wrinkles or skin texture at this stage; I simply concentrated on getting the right shape and position of the eyes, nose and mouth, and so on. Once I was happy with the result, I further detailed the model using the same logic, which consisted of sculpting the most important and visible elements before sculpting more subtle details. The procedure is always the same: start from something simple and gradually add finer details.

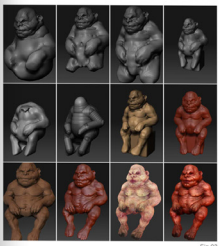


Fig.03

I applied the same principles for the body. I started with a sphere and quickly sculpted it to achieve the basic proportions. After modeling the head I imagined the character with a short and stocky body, so I tried to achieve that. Once I was satisfied with the basic proportions of the body, I recreated it using ZSpheres to make sure I was working with a clean topology. I later added secondary shapes, like muscles, joints and fingers, and then sculpted winkles and finer details, like nails. Finally, I added grain to the skin, and some small veins and spots.

At this stage, the modeling was almost done, but the head was still separated from the body. To achieve a single object, I used ZBrush's topology tool, which allows you to transfer details from one object to another with almost no need to retopologize an

Fig.04

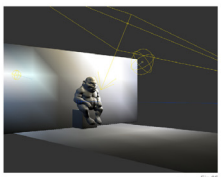


Fig.05

object, whilst keeping the level of detail. I used the latter technique to put the head and body together. A bit more tweaking was necessary to adjust the head/body junction, and the modeling was finally finished (**Fig.03**).

Texturing

Textures are a very important element in the conception of a character. Bad textures can ruin a good model! I usually try to make textures which highlight the shapes and spirit of my models.

With the gnome, I wanted the skin to be almost human-like, to give it more life. I painted the texture directly on the model within ZBrush. The same principle as before also applies here. I first painted general shades and then added more and more details, such as skin blemishes and spots (**Fig.04**). Regarding skin textures, I tend to paint as neutrally as I can, with no shadow or highlight effects. I think this just gives more interesting results when rendering.

Lighting/Rendering

Then came the time to bring our friend to life! I had a model with textures applied to it, so I just needed a lighting set up at this stage. Since I wanted all the attention to be on the gnome, I created a simple scene (**Fig.05**) and set up the lights. To find the best

Fig.08

Fig.06

Fig.07

positions for lights, I often test with quick renders with no textures. This allows me to better understand how the lights affect the scene (**Fig.06**).

Once I was done with the lighting set up, I created the shaders. With the gnome model, the only tricky shader was the skin. I decided to render my scene with V-Ray because I like the quality of its renders and the way the shaders work. The most important thing in this case was to get an interesting skin aspect. To find the best

settings for the shaders I rendered each element of the shader separately so I could optimize them better before rendering them altogether. For instance, I started working on the Sub Surface Scattering with no diffuse, no specular and so on. Once each element was set up correctly, I checked how they worked when rendered together. I've found this helps to control the final result when I work in this way. I sometimes render with several passes to have more control, but didn't do it for this particular illustration (**Fig.07**).

Post Production

For the last step of this illustration, I used Combustion to finish the image. Discreet Color Corrector was really helpful for this task as it gave me complete control over the colors. This step allowed me to adjust colors, contrasts, hues and so on. Renders are, in general, a bit cold – very “computerish”. Having a last step to adjust colors is usually the final touch which gives more life and power to an illustration (**Fig.08**)!

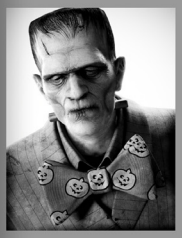
Conclusion

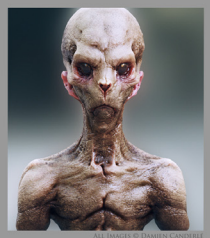
Working on this character was very interesting and instructive for me. I was quite pleased with the result knowing that I originally only wanted to make some tests. This character came to life all by itself, which may be why it has such a strong feel.

Well, I hope you've learned something from this “making of”. As a little extra, here is the gnome from a different angle and another lighting set up (**Fig.09**)!

Fig.09

Artist Portfolio





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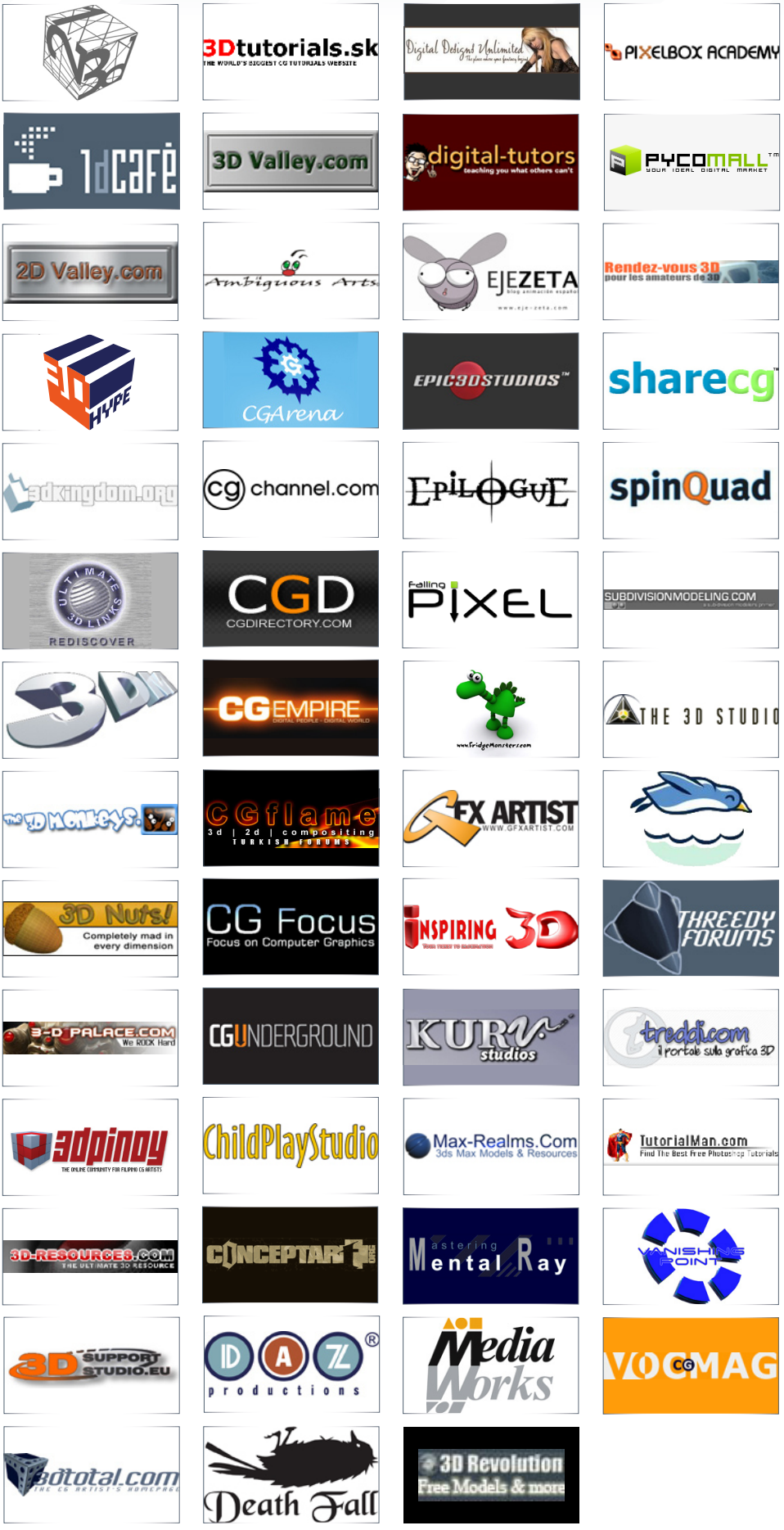

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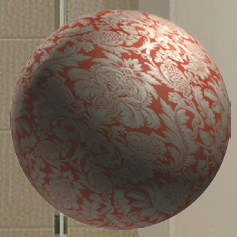

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